(10-15μm), a fast pull-back speed and no need for arterial occlusion. This technique might be useful for a better identification of in vivo culprit coronary lesion characteristics. The aim of our study was to assess feasibility and contribution of OCT in the setting of acute coronary syndrome (ACS).

Methods: Patients admitted in our center for ACS were included in this study. FD OCT was performed to the culprit lesion when TIMI 3 flow was obtained spontaneously or after thrombo-aspiration. The thrombus was assessed with OCT and compared to histopathological analysis. The markers of vulnerable plaque (lipid rich core, intra-plaque neo channels and thin fibrous cap) and the rupture site were also analyzed.

Results: N=11, patients were included, 6 patients with STEMI and 5 patients with NSTEMI. 8 patients presented with TIMI 0 flow, and were treated with thrombo-aspiration. The site of plaque rupture was easily identified in 63% of patients. We were able to successfully analyze the fibrous cap in 100% of the cases, with excellent inter-operator reproducibility. The mean minimal thickness of the fibrous cap was of 57μm ±11. Other markers of the vulnerable plaque were also identified such as lipid rich core (72%) and neo-channels (63%). White and red thrombus could be identified by OCT and compared to histopathological analysis.

Conclusion: Our study shows that OCT was feasible in ACS, with 100% procedural success. This is the first in vivo, human report correlating the thrombus pattern on OCT with histology. Classical markers of vulnerable plaque such as thin fibrous cap and lipid rich core were and successfully identified. Neo-channels were also identified and need further investigation for their diagnostic and prognostic impact.

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Common predictors of Blush score and TIMI flow following primary angioplasty
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Achieving TIMI flow 3 during primary angioplasty for acute myocardial infarction (PAMI) was associated with better left ventricular function and better prognosis. Blush score 2 or 3 was an indicator of reperfusion after angioplasty. The aim of our study was to identify predictive factors of TIMI flow 3 and Blush score 2 or 3.

Patients and Methods: Two hundred twenty-eight consecutive primary angioplasty were performed in our department. Culprit artery patency was classified according to TIMI (Thrombolysis in Myocardial Infarction). Culprit artery was considered permeable when TIMI flow was grade 3 and the Blush score was 2 or 3 following recanalization.

Results: A TIMI flow 3 was obtained in 86%. All these following factors were not associated with patency of culprit coronary: gender, cardio-vascular risk factors, location and the culprit artery of AMI, Q wave necrosis, multi-vessel disease and right ventricular extension.

In univariate analysis, left ventricle ejection fraction over than 45% (p=0.014 for TIMI; p=0.01 for Blush) and regression of ST segment elevation more than 50% (p=0.0001 for TIMI; p=0.0001 for Blush) were associated with better TIMI flow and Blush score. Anemia (p=0.01 for TIMI; p=0.05 for Blush), left ventricular failure (p=0.001 for TIMI; p=0.007 for Blush), shock (p=0.004 for TIMI; p=0.001 for Blush) and residual thrombus (p=0.0001 for TIMI p=0.032 for Blush) were predictive for slow-flow and Blush score 0 or 1.

In multivariate analysis, regression of ST segment elevation more than 50% was the most important predictive factor of blush score 2 or 3 and especially of TIMI 3 (TIMI 3: p=0.0001, CI=95%, OR=25 [8-79]; Blush score 2 or 3: p=0.0001, CI=95%, OR=2.8 [1.6-5.1]).

Conclusion: Regression of ST segment elevation was the most important predictor of TIMI 3 and of Blush score 2 or 3, independently associated with the other factors.

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Combined local drug delivery for bifurcated lesions. DEB and DES is there any future?
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Background: Reconstruction of majority of bifurcation lesions can be achieved with a provisional T technique. Unfortunately restenosis still persists, especially at the ostium of the side branch in DES era. Increasing the amount of the same drug at the carena site is associated with a non adaptive response and a majoration of tissue proliferation, while combination of drugs does not lead to such results. We considered evaluate a combination of drug in a pilot study.

Method: 15 patients (13 male, 2 female), 64+/–11 years old underwent bifurcation reconstruction, via 6F radial route, with provisional T strategy and a good angiographic result using SES (n=9) and EES (n=6) in the main branch with a mean stent length of 19.5+/–6.1 mm. Final kissing balloon was achieved in all cases. No additional stent was needed in the side branch. Lesions included distal left main (n=5), LAD/diagonal (n=6), CX/ obtuse marginal (n=3), distal right coronary artery (n=1). At the end of the procedure an additional drug delivery was performed locally, with a 1:1 balloon/artery ratio, using a 20 mm Sequent Please balloon (DEB), Braun (paclitaxel) in the side branch, with a mean diameter of 2.8+/–0.4 mm delivered at 13.6+/–2.6 atm, proximal dot floating at the edge of the stent. Additional kissing balloon was performed again to prevent stent deformation following DEB in the bifurcation, using the previous Sequent Please balloon and appropriate Maverick balloon (Boston Scientific) in the main branch. Informed consent was obtained for all patients.

Result: Angiographic success was achieved in all cases with no complications during hospital phase (death, MI, repeat PTCA, CABG, stent occlusion, stroke, surgery or transfusion). At 6 months, no event was noted.

Conclusion: Combined local drug delivery SES+DEB or EES+DEB for bifurcation lesions is safe and feasible in this short serie. One year results will be presented. Benefit of this strategy in a large multicentric population should be studied.

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Gender differences in diabetic patients with acute coronary syndrome
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Introduction: The coronary heart disease in diabetic women is often different than that in diabetic men, due to a particular pathophysiology.