sions with ostial LCX stenting. The follow-up angiography was performed at 8 months after procedure. Exclusion criteria included the following: bare metal stenting, hybrid stenting, in-stent restenosis at the ostial site of the LCX, tri-urection lesions, and previous LMT to left anterior descending coronary artery crossover stenting. The primary endpoints of our study were main and side branch restenoses and target lesion revascularization (TLR) at 6-month follow-up.

Results: In LMT-LCX crossover stenting and ostial LCX stenting, the restenosis rates were 20.5% (8/39) and 40.1% (9/22) (p=0.008), the TLR rates were 12.8% (5/39) vs. 24.0% (9/22) (p=0.033), and the clinically driven TLR rates were 7.7% (3/39) and 13.7% (3/22) (p=0.0458).

Conclusion: The TLR rate was higher in ostial LCX stenting than in LMT-LCX crossover stenting. LMT-LCX crossover stenting may be more feasible if possible.

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Everolimus- and sirolimus-eluting stents in patients with and without ST-elevation myocardial infarction: two year pooled results from the XAMI and APPENDIX-AMI trials
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Purpose: Randomized comparison everolimus-eluting stents (EES) and sirolimus-eluting stents (SES) in patients with ST-elevation myocardial infarction (STEMI) and non-ST-elevation myocardial infarction (NSTEMI). STEMI patients were exclusively included in the EES arm and SES arm respectively.
Methods: A patient-level pooled analysis of the XAMI (a prospective trial randomizing 625 acute MI patients to EES or SES) and APPENDIX-AMI (an open-label trial randomising 977 all-comer patients to EES or SES) trials was performed. Patients were stratified according to randomized stent and presentation disease. The primary endpoint consisted of cardiac mortality, MI and target vessel revascularization (TVR) during 2-year follow-up. Secondary endpoints were the post hoc defined alternative composite endpoint (all-cause mortality, MI, TVR, individual components of the composite and definite/probable stent thrombosis (ST)).
Results: The patient-level pooled analysis of 3272 patients was done using χ² test and log rank test for Kaplan Meier curves.
Results: STEMI was the presenting diagnosis in 712 patients (EES 455; SES 443). Of these patients, 32.8% presented with stable angina and 22.7% with unstable angina or non-STEMI. In the STEMI population, EES patients had more calcified lesions and on average shorter stent length compared to SES patients. Other characteristics were balanced. At two-years, EES use was associated with a trend toward a reduction in the primary endpoint compared to SES (6.0% vs. 9.3%, HR 0.63, 95% CI 0.36-1.09, p=0.097), a significant reduction in the alternative composite endpoint (6.9% vs. 11.7%, HR 0.58, 95% CI 0.35-0.95, p=0.031) and a trend toward reduced early definite/ probable ST (0.7% vs. 2.3%, p=0.057). In the population without STEMI, EES patients less frequently had prior hyper-tension, coronary interventions and calcified lesions compared to SES. In these patients, no differences in clinical outcomes at 2-years were observed between the stents.
Conclusion: In STEMI patients, randomization to EES was associated with trend reduction during the primary endpoint and early ST rate compared to SES during 2-year follow-up. Furthermore, the post hoc defined alternative composite endpoint was significantly reduced in EES patients. No differences in clinical endpoints between EES and SES were observed in patients presenting with a diagnosis other than STEMI, hinting at an advantage of EES over SES in the endpoints between EES and SES were observed in patients presenting with ACS.

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Second-generation everolimus eluting bioresorbable vascular scaffold for treatment of patients presenting with acute coronary syndromes - insights from the Rotterdam EXPAND registry
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Purpose: The second generation everolimus eluting vascular scaffold (BVS) has been evaluated in the ABSORB clinical trial program. Patients with acute coronary syndromes (ACS) were excluded from those trials and at the current state of the art, no data are available on the performance of the BVS in patients presenting with ACS or without ST-segment elevation (STEMI or NSTEMI). We report for the first time data after implantation of the BVS specifically in patients with ACS.
Methods: Unselected consecutive patients presenting with acute coronary syndromes with or without ST-segment elevation (STEMI or NSTEMI) were implanted with second generation BVS. Procedural data and short-term clinical outcomes were prospectively evaluated.
Results: A total of 49 patients presenting with ACS (35 NSTEMI and 13 STEMI) were implanted with second generation BVS. Mean age was 59±10 years, male gender in 78% of cases; the majority of lesion were located in left anterior descending coronary artery (LAD 53%, CX 25%, RCA 24%); moderate or severe calcification were observed in 46% of lesions. BVS was successfully implanted in 96% of cases (in 2 cases, NSTEMI and 1STEMI, the BVS failed in crossing the lesion). BVS overlap was performed in 12 patients and in 2 cases bifurcation lesions were successfully treated with provisional approach. The mean follow-up period was 73±41 days and no cases of target lesion revascularization, myocardial infarction, cardiac death and scaffold thrombosis were reported.
Conclusions: The present report is the first investigating the performance of second generation BVS in patients with acute coronary syndromes. Our data suggest feasibility of implantation of this novel device in patients with NSTEMI or STEMI with a high procedural success rate and excellent short-term clinical outcomes.

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The association between in-stent appositional mismatch, multiple interstrut hollows, and in-stent thrombosis formation in lesions after drug-eluting stent implantation
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Purpose: Incomplete stent apposition (ISA) assessed with intravascular ultrasound was known as one of risk factors for stent thrombosis. Meanwhile, it was reported that peri-stent contrast staining (PSS) was associated with very late stent thrombosis, and was also reported that ISA and multiple interstrut hollows (MIH) were observed in the lesions with PSS using optical coherence tomography (OCT). However, little is known about the association between ISA, MIH, and in-stent thrombosis formation in lesions after drug-eluting stent (DES) implantation.
Methods: Between May 2008 and January 2013, we performed OCT for 328 in-stent restenosis lesions after DES implantation. Cross-sectional OCT images were evaluated.

Figure 1: The Association between ISA, MIH, in-stent thrombosis and scaffold thrombosis.
an effect on only the formation of red thrombus. Thrombus formation in restenosis lesions after DES implantation. MIH might have been assessed with OCT might to be one of risk factors for in-stent thrombus formation in restenosis lesions after DES implantation. MIH might have an effect on only the formation of red thrombus.

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Direct bioabsorbable coronary scaffold implantation. Feasibility and immediate results
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Predilution of coronary lesions has been recommended before bioabsorbable vascular scaffolding (BVS). However, there is no information on the routine use of direct BVS implantation in patients with coronary artery disease (CAD). The purpose of this study was to analyze the feasibility and safety of direct BVS implantation without plaque pre-conditioning by balloon dilation. From 117 patients with CAD (mean age 57±10 years) treated by BVS in 159 lesions, we analyzed the procedure in those in which direct implantation was first attempted (118.14%). Effective predilation was carried out if the ultrasound study showed a heavy calcified plaque, if the IVUS probe could not cross the lesion or if the lesion was occlusive, being those lesions excluded of the study. All lesions were analyzed by angiography and intracoronary ultrasound (IVUS) before and after the treatment. In 35 lesions (29%) the final result was also evaluated by optical coherence tomography (OCT). Direct implantation was successfully achieved in 102 lesions (83.8%). In the remaining 16 stenosis (14%) it was not possible to cross; then, the device was retrieved and successfully implanted after lesion predilation. Failure to cross never originated the need for a new device. Need for post-dilation (residual stenosis, underexpansion or no-apposition) was observed in 40 lesions (34%). A larger plaque burden was a factor associated with failure to directly cross the lesion (84% vs 77%, p = 0.037). Proximal or distal edge dissection, as evaluated by angiography was not observed. However by IVUS and/or OCT, minor edge dissection were detected in 10 lesions (8%); proximal edge in 4 and distal edge in 6. Additional stent was not needed at the borders.

Conclusions: Direct BVS implantation is safe and feasible in most soft and inelastic coronary plaques. A larger plaque burden at the minimal lumen area is associated with failure for direct implantation. When this occur, the device can be safely retrieved and reimplanted after predilation.

P3026 | BEDSIDE
Endothelial vasomotor function after everolimus-eluting stent implantation
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Background and aim: Several studies have reported some grade of endothelial dysfunction (ED) after sirolimus-eluting stent, paclitaxel-eluting stent and zotarolimus eluting stent implantation, but up to the date, the effects of everolimus-eluting stent (EES) on endothelial vasomotor function are not well known. The aim of this study was to evaluate the grade of ED in patients with EES compared to patients with bare metal stent (BMS) implantation.

Methods: Consecutive patients with successfully EES implantation were included in the experience. The control group consisted in 15 patients successfully treated with BMS. A coronary arteriography and an intracoronary acetylcholine (Ach) ED test were performed to all patients 6 months after stent implantation. Quantitative coronary angiography analysis was performed by two experienced operators evaluating changes in mean luminal diameter (MLD) of the segment distal to the stent after increasing doses of Ach. To minimize the potential influence of differences in baseline characteristics among groups, a general linear model was used to analyze the changes in MLD in response to intracoronary Ach infusion, unadjusted and adjusted by stent length, in-stent lumen loss and baseline MLD as covariates.

Results: Fifteen patients with EES and 15 patients with BMS were included. EES group presented a MLD variation of 3.14% after Ach highest dose infusion. BMS group showed a variation of 2.35% with no statistically significant difference (3.14% vs 2.35%, p = 0.65). When the comparison was performed with adjusted data, (Figure 1) despite a numerical tendency of higher degree of vasoconstriction in EES group compared to BMS no statistically significant difference was found. EES implantation is not related with a higher ED grade compared to BMS implantation.

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First in man study of dedicated bifurcation sirolimus eluting stent: complete 6 months clinical results of BIOSS LIM Registry
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Purpose: The aim of this first-in-man study is to assess effectiveness and safety of dedicated bifurcation sirolimus-eluting stent BIOSS LIM (Balton, Poland) in patients with stable coronary artery disease (CAD) or NSTEMI-ACS.

Methods: BIOSS LIM is a coronary dedicated bifurcation sirolimus-eluting balloon expandable stent made of 316L stainless steel. The stent consists of two parts with different diameters connected with two struts of 1.5 mm length. Patients with a previous diagnosis of stable CAD or NSTEMI-ACS who signed informed consent between October 2011 and October 2012 were included into the study. The enrolment was performed in three invasive cardiology centers in Poland, Bulgaric and Spain. Patients with STEMI or Medina type 011 bifurcation lesions were excluded from the registry. Provisional T-stenting was obligatory strategy. An angiographic control was planned at 12 months in all patients. The primary endpoint of the study is the rate of death, myocardial infarction, in-stent thrombosis and target lesion revascularization after 12 months. Here are presented complete results of 3-month follow-up. However at the time of ESC Congress 2013 complete clinical 6-month follow-up will be available as well as angiographic controls will be performed in more than 75% of enrolled patients.

Results: Thirty patients with stable CAD or NSTEMI-ACS (78.3% vs 21.7%, respectively) were included into this prospective, feasibility and safety assessment registry. The average age of enrolled patients (71.7% males) was 66±11.3 years. There were 46 (76.7%) patients with hypertension, 23 (38.3%) with diabetes and 17 (28.3%) with prior MI. Additionally, 28 patients (46.7%) underwent prior PCI, while 6 (10%) patients had previous CABG. In 50% of the cases the lesion was localized in LMS, followed by 41.7% in LAD, 6.7% in LCx and 1.0% in RCA. According to the Medina classification the stenting rate was present in 80%. All BIOSS stents were implanted successfully (avg. pressure 14 atm). The mean nominal stent parameters were as followed: 3.67±0.40mm x 17.13±2.06mm. In 8 (13.3%) cases the second stent was implanted within the side branch. In 5 cases (8.3%) asymptomatic increase in TII level was observed. At one and three months all patients were uneventful (cut-off hospital MACE rate 0%). Up to now contrast angiography was performed at 19 patients (31.7%), among whom 1 (5.3%) significant restenosis requiring PCI was noted.

Conclusions: Dedicated bifurcation sirolimus-eluting stent BIOSS LIM is a feasible device with promising safety profile and short-term clinical effectiveness. Long-term data is pending.