eliminate in-stent restenosis in selected simple lesions (FIM, RAVEL trials). The aim of this study is to investigate the efficacy of SES in the treatment of bifurcation lesions.

Methods: Since 1st April 2002 it is the policy of our institution to utilize the SES as a device of choice for all percutaneous interventions, with no conical or anatomic exclusion criteria. The patients with bifurcation lesions are being included in this study. The follow-up angiography will be performed at 6 months after procedure. Results: Up to 16th August 2002, 44 patients with 44 bifurcation lesions have been treated with SES. The mean age was 61 years old and 13 patients (29.5%) were diabetic. All patients underwent SES deployment in both vessels. The baseline QCA results are present in the table. So far, there has been one in-stent lesion recanalization 5 weeks after procedure, however it is noteworthy that the restenosis occurred at the ostium of a side branch that was not covered with SES. The clinical outcomes and follow-up QCA results will be available at the time of presentation. Conclusions: In this study, the impact of sirolimus-eluting stents on the outcome of patients with bifurcation lesions in the "real world" experience will be reported.

1030-181 The Frequency and Consequences of Angiographic Aneurysms After Sirolimus-eluting Stents: Results from SIRIUS

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Background: Angiographic aneurysms are observed after control bare metal stents (CBS) in < 1% of pts and thus far have not been associated with deleterious clinical outcomes. The marked anti-proliferative effects of sirolimus-eluting stents (SES) raise concerns regarding potential vessel wall thinning and an increase in aneurysm formation.

Methods: In the randomized double-blind SIRIUS trial (1058 pts), 8-month angiographic follow-up (FU) was obtained in 66% (702 pts). Angiographic aneurysms were defined as treatment site vessel diameter ≥ 1.5X the normal reference diameter (either at baseline or at FU) and all patients were assessed for clinical events (up to 9 months).

Results: Aneurysms were found at FU in 6 pts (0.9%): 4 pts with CS (1.1%) and 2 pts with SES (0.6%). In the 4 CS aneurysms @ FU, 2 were present at baseline and morphology was fusiform in 2 (both multiple stents), and eccentric focal (< 10 mm length) aneurysms in 2 (1 proximal to RCA stent). In the 2 SES aneurysms @ FU, none were present at baseline and morphology was fusiform ectasia in 1 (3 SES after long RCA dissection) and eccentric focal outpouching in 1 (within RCA SES). In the 1 case of SES focal outpouching, IVUS exam revealed clear incomplete apposition at FU (flush apposition at baseline) with positive remodeling. Although 2 pts with angiographic aneurysms in CS pts had Rest at FU, no pt in either group had adverse clinical events (death, MI, or stent thrombosis) during FU.

Conclusions: Results from the SIRIUS angiographic analysis indicate that aneurysms at FU are (1) extremely infrequent (< 1%) with both CBS and SES; (2) commonly were present at baseline and often are seen as diffuse fusiform ectasia; (3) are not associated with important clinical events (e.g. MACE); and (4) therefore, there are no objective findings to suggest that SES confer added risk of aneurysm formation and subsequent clinical events.

1030-182 Platelet Activation After Stenting With Heparin-Coated Versus Noncoated Stents

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Objectives: The purpose of the study was to investigate the effect of heparin coating on platelet activation following coronary artery stenting. Background: In animal models, heparin coating reduces platelet aggregation induced by coronary injury. However, reduced platelet activation has never been demonstrated in humans. Methods: In a prospective randomized study of 50 consecutive elective patients, platelet activation was analyzed by measuring aggregation and surface receptor expression at baseline and at 2 hours, 4 hours, 5 and 30 days following implantation of either heparin-coated or noncoated ioxixanol (IX velocity stainets). Results: Platelet activation as measured by 24 hour exposure (mean fluorescence intensity) of acetyl glycoprotein (GP) IIIb/IIIa, and total GP IIb/IIIa, was decreased following implantation of a heparin coated stent as compared to bare stent. At 24 hours post stenting lower total (296±160 vs. 296±60, p=0.07) and average GP IIb/IIIa expression (10.3±6.9 vs. 7.5±2.9, p=0.10). The results were also observed with the heparin-coated stent. Aggregation and stimulated p-selectin did not differ. Conclusion: Effective stenting with a heparin-coated stent is associated with less early expression of GP IIb/IIIa on circulating platelets as compared to recanalization with a bare stent of the same design. These findings provide direct implications on the risk of subacute thrombosis and deserve further investigation.

1030-183 Sirolimus-Eluting Stent for the Treatment of Bypass Graft Disease: The Initial U.S. Experience

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Background: Drug-eluting stents reduce first-time in-stent restenosis (ISR) and are being investigated as a treatment for ISR after bare-metal stenting. However, it remains unclear whether overlapping drug-eluting stents (and effectively doubling the drug dose) has a toxic effect on the vessel wall.

Objective: The purpose of this study was to analyze the one-year TUS findings after 2 overlapping Sirolimus-eluting stents were implanted in patients with native artery ISR lesions.

Methods: Of 25 patients in the ISR SIRIUS registry, 8 had a lesion length requiring 2 stents for full lesion coverage. Per protocol, these stents were implanted with a >1 mm of overlap. Volumetric Intravascular ultrasound (IVUS) was performed immediately and one year after implantation.

1030-184 Use of the Sirolimus Drug-Eluting Stent for Real World Coronary Lesions The Milan Experience: Results of the First 405 Lesions

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Background: Positive results from the use of the Sirolimus drug-eluting stent (CYPHER™, Cordis) in clinical trials addressing selected lesions have been published. We report our experience with the use of the Cypher stent in everyday clinical practice.

Methods: We included all lesions treated with the Cypher stent in Milan between 15 April and 30 April 2002. Major adverse cardiac events (MACE) were defined as death, Q-wave myocardial infarction or target lesion revascularization.

Results: Three hundred fifty-three (84.5%) lesions were complex (ACC/AHA classification IIb or III); 82 (20.3%) were in-stent restenosis and 42 (10.0%) chronic total occlusions. We utilized 2.0±0.6 Cypher stents per procedure (1.9±0.5 per lesion). Intravascular ultrasound guidance was used in 67 (16.0%) lesions. The reference vessel size was 2.0±0.5mm, the minimal lumen diameter (MLD) 0.79±0.40mm and the mean lesion length 15.8±5.13.8mm.

Conclusions: Lesions of Cypher stents used per lesion was 29.0±16.2mm. The maximum inflation pressure used was 16.7±5.0 atm. The maximum stent overlap was 4.9±1.3. The post-procedure MLD was 2.81±0.47mm, resulting in acute gain of 2.0±0.6mm.

1030-185 Is There Any Arterial Toxic Effect After Overlapping Sirolimus-Eluting Stents?

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Background: Drug-eluting stents reduce first-time in-stent restenosis (ISR) and are being investigated as a treatment for ISR after bare-metal stenting. However, it remains unclear whether overlapping drug-eluting stents (and effectively doubling the drug dose) has a toxic effect on the vessel wall.

Objective: The purpose of this study was to analyze the one-year TUS findings after 2 overlapping Sirolimus-eluting stents were implanted in patients with native artery ISR lesions.

Methods: Of 25 patients in the ISR SIRIUS registry, 8 had a lesion length requiring 2 stents for full lesion coverage. Per protocol, these stents were implanted with a >1mm of overlap. Volumetric Intravascular ultrasound (IVUS) was performed immediately and one year after implantation.

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