Conclusion: BVS absorb Everolimus eluting vascular scaffold showed favorable clinical outcome without any major cardiac events (acute or late stent thrombosis, MI or death) over a period of 9 month. Thus, BVS absorb would be favorable alternative to other available drug eluting metallic stents.

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Five-year Clinical Follow-up of Long Paclitaxel Drug Eluting Stents

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Background: With increasing complex PCI's, long stents have been increasingly used. However the long-term clinical outcomes of these stents have not been well studied.

Methods: A retrospective analysis of 586 consecutive patients who underwent PCI using paclitaxel DES (Taxus Liberté) during the period December 2005 to August 2007 was done. 90.1% were followed up for a median duration of 60 months (12-86 months). Long stents were defined as ≥24mm (group A)-178 patients (33.7%) were compared to relative short stents ≤24mm (group B)-350 patients (66.3%).

Results: The study population was a high risk group with 43.3% diabetes in group A and 46.3% in group B (p=0.524). Other baseline characteristics were also well matched except for indwible ischemia on treadmill which were more in group A 42.7% vs group B 31.9% (p=0.012), patients in group A required more than one stent 50.6% vs group B 37.7% (p=0.004) and patients in group A had more RCA interventions than group B – 38.2% vs 25.7% (p=0.002). Mean no of stents implanted per patient was 1.5. MACCE at hospital discharge was 0% in group A vs 0.7% in group B (p = 0.557), at 1 year was 4.4% vs 4.3% (p=0.984), at 5 years was 12.8% vs 13.6% (p=0.871); TLR at discharge was 0% in group A and 0.2% in group B (p=1.0), at 1 year was 3.1% vs 1.1% (p=0.138), at 5 years was significantly higher in group A 4.9% vs 1.6% (p=0.025). There is no difference in stent thrombosis at discharge 0% in group A vs 0.2% in group B (p=0.681), at 1 year 0.6% vs 1.6% (p=0.681), at 5 years was 0.6% vs 2.1% (p=0.290). At 5 years, Definite ST was 0.0% in group A vs 0.3% group B (p=0.513). Probable ST 0% vs 0.3% (p=1.0), Possible ST 0.6% vs 2.7% (p=0.186). There was no in hospital mortality in either groups, mortality at 1 year was 0% in group A vs 1.6% in group B (p=0.185), at 5 years 2.5% vs 5.3% (p=0.175). The overall event-free survival at 5 years was comparable in both the groups (87.2% vs86.4%).

Conclusion: Clinical outcomes of long paclitaxel drug eluting stents (≥ 24 mm) were relatively short stents (≤ 24 mm) at 5 years.

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Two-year Clinical Outcomes of Patients with Drug Eluting Stents in Diffuse Long Lesions; Comparison of 1st Generation Sirolimus Eluting Stent Versus 2nd Generation Everolimus Eluting Stent

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Background: The aim of this study is to compare clinical outcomes between 1st generation sirolimus eluting stent and 2nd generation everolimus eluting stent in patients with diffuse long lesions for 2 years.

Methods: A total 381 Patients with diffuse long lesion treated with ≥ 50 mm stent segment in de novo lesions from Jan 2006 to Aug 2011 were enrolled. The patients were divided into two groups as sirolimus eluting stent (SES, n=265) group and everolimus eluting stent (EES, n=116) group. Study end-points were major adverse cardiac events (MACE) including all death, myocardial infarction (MI), and ischemic driven target vessel revascularization (Id-TVr).

Results: Baseline characteristics were similar. Stent length was 61.7±11.0 in SES and 62.8±13.7 in EES (p=0.593). For 2 years clinical follow-up, the rate of cumulative MACE was 10.7% in SES and 7.4% in EES (p=0.346). The rate of all death was observed 5.7% in SES and 6.3% in EES group (p=0.840). The rate of MI was observed 2.3% in SES and 5.3% in EES (p=0.153). The rate of Id-TVr was observed 7.7% in SES and 6.3% in EES (p=0.666).

Conclusion: The clinical outcomes between SES and EES in patients with diffuse long lesions were not different for 2 years. Further longer term follow-up and larger population study will be needed for better evaluation.

Key word: Sirolimus-Eluting stent, Everolimus-Eluting stent, Diffuse long lesion.

TCTAP A-170

Efficacy of Everolimus-eluting Stent Implantation in Patients with Small Coronary (≤ 2.5mm) Arteries: Outcomes of 2-year Clinical Follow-up

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Background: Previous studies have demonstrated that patients with small coronary artery lesions (SCAL) are at increased risk for late cardiac events after percutaneous coronary intervention (PCI). It remains uncertain whether second-generation drug-eluting stents have an advantage first-generation drug-eluting stents (DES) in patients with SCAL. This study aimed to evaluate the long-term efficacy of everolimus-eluting stent(EES) and sirolimus-eluting stents(SES) on SCAL.

Methods: Consecutive 353 patients with 400 SCAL, who were treated with EES (153 patients, 180 lesions) and SES (203 patients, 220 lesions) were enrolled. SCAL was defined the lesions with reference vessel diameter(RVD) ≤ 2.5 mm. Within ten months angiographic follow-up results and 2-year clinical follow-up outcomes were compared between EES and SES groups.

Results: The prevalence of diabetes was higher and the stent length was longer (22.9±7.0 vs 20.1±4.7, p<0.05) in EES group than in SES group. Initial success rate was similar in both groups. There was no difference in 2-year % binary restenosis, TLR (1.7% vs 4.7%), and MACCE (3.3% vs 6.4%) rates between 2 groups. This similar major adverse cardiovascular events rate remained after adjustment. However, the rate of stent thrombosis was 0% in the EES group and 1.8% in the SES group (p = 0.12).

Conclusion: EES demonstrated comparable clinical outcomes to those of SES in SCAL. The absence of stent thrombosis among patients treated with EES suggests a good safety profile for this second-generation drug-eluting stent, which should be carefully studied in a larger series of patients with SCAL.

Background: Nature of Coronary artery disease (CAD) in Pakistani population is diffuse with small caliber arteries. Now a days, these are treated, by PCI with stent deployment. However, long term data on In-stent re-stenosis (ISR) in these patients are not yet available. Therefore, the aim of our present study was to assess long-term outcome of stent patency or the development of ISR of varieties stent in single vessel territory.

Methods: Patients were selected retrospectively, who underwent coronary angiogram at our hospital for further evaluation of their previous PTCA in the 3–36 months preceding the study for the quantifying period of 2006-2012. Total 577 patients (male: 474, Female: 103) were included in this study. Average age was Male: 56; Female: 59. Average study period was 3.4.

Results: Our result shows that among the total studied population 82.1% (474) were male and 17.9% (103) were female. Female were more obese than male BMI (27 vs 26). Total 864 stent were deployed in 785 vessels. Common stented territories were in LAD 366 (46.6%), RCA 236 (30.1%) and LCX 183 (23.3%). Stent used were BMS 105(30.8%), DES 236 (69.2). Territory wise total number of deployed stent in LAD 396 (45.8%), RCA 272 (31.5%) and LCX 196 (22.7%). Single artery stent were done in 442 (76.6%), double artery stent in 128 (22.2%) and Triple artery in 7 (1.2%) patient. Total 94 (16.3%) patient had double/multiple stent in a single vessel territory. Re-look Coronary Angiogram (CAG) revealed that the patency of stents in BMS 210 (56.5%) and DES 308 (73.5%) treated vessel. Significant ISR (ISR>60%) developed in BMS 97(26.1%) and DES 74 (17.6%). Among the different DES; patency in Sirolimus 75.2% (157), Everolimus 70.7% (51), Paclitaxel 65.4% (71) and in Bio-limus-A9 88.2% (15). Among the different DES the development of significant ISR was in Paclitaxel 20.4% (22), Sirolimus 18.6% (39), Everolimus 15.7% (11). Although the other Bio-limus

Conclusion: In our present prospective cohort, Sirolimus Eluting Stent shows better patency with reduced ISR for an average period of 3.4 years.