

(88.5% vs. 95.1%,  $P=0.025$ ), and the RCA originating from anomalous location in the RSV had the lowest success rate (87.0%). The Judkins Left was the most common eventually selected catheter for left coronary artery origin anomalies (45.6%), and for RCA was Amplatz Left (53.7%). Of the 33 PCI failure cases, 63.6% was chronic total occlusions in which the catheter backup had more important role, and the first cause of failure was guidewire failure (81.0% for occlusion and 25.0% for non-occlusion lesion).

**CONCLUSIONS** COAs are rare, but may cause difficulties during PCI and compromise the success rate of the procedure. The RCA originating from anomalous location in the RSV is the most difficult type of anomaly to perform the PCI, and most of the failure cases due to guidewire failure, especially for those chronic total occlusion lesions. Awareness of common COAs could be helpful for interventional cardiologists, to select more appropriate catheters, save more procedure times, and ultimately achieve better results.

**CATEGORIES CORONARY:** Angiography and QCA

**KEYWORDS** Coronary anomalies

### TCT-395

**Dedicated coronary bifurcation stent BioSS in patients with diabetes. Does the design matter?**

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**BACKGROUND** Percutaneous coronary interventions within bifurcations are high-risk procedures. If they are performed in diabetic patients, the risk additionally increases. The aim of this study was to analyze the performance of BioSS (Balton, Poland) stents in diabetic patients enrolled into two randomized clinical trials POLBOS I and POLBOS II.

**METHODS** The BioSS stent is a coronary dedicated bifurcation balloon expandable stent made of 316L stainless steel and coated with a biodegradable polymer as well as the drug. Presently, there are two versions of the stent: BioSS Expert eluting paclitaxel, and BioSS LIM eluting sirolimus. The stent consists of two parts with different diameters connected with two struts (1.5 mm in length). The aim of randomized POLBOS trials was to compare BioSS stents with the regular drug eluting stents (rDES) in patients with stable CAD or NSTEMI-ACS (POLBOS I compared BioSS Expert vs rDES, POLBOS II - BioSS LIM vs rDES). Provisional T-stenting was the default strategy. An angiographic control was performed at 12 months in all patients. The primary end-point was MACE at 12 months defined as cardiac death, myocardial infarction or target lesion revascularization (TLR).

**RESULTS** In both trials 445 patients were enrolled (BioSS Expert - 120 pts, BioSS LIM - 102, rDES - 223). The mean age was 66 yrs (28% women). The rate of diabetes (DM) in BioSS Expert group was 37.5% ( $n=45$ ), in BioSS LIM group - 44.1% ( $n=45$ ), and in rDES - 28.3% ( $n=63$ ). In overall population dominant vessel was LAD (BioSS Expert vs BioSS LIM vs DES: 52% 44.1% vs 57%) followed by LM (22% vs 35% vs 24%). According to Medina classification true bifurcations were present in 64%, 66%, 60%, respectively. In rDES group 30.9% of stents eluted paclitaxel. The overall TLR rate in BioSS Expert group was 11.5% ( $n=14$ ) [DM: 8.9% ( $n=4$ ) vs non-DM: 13.3% ( $n=10$ )], the TLR rate in BioSS LIM was 9.8% ( $n=10$ ) [DM: 8.9% ( $n=4$ ) vs non-DM: 10.5% ( $n=6$ )], whereas in rDES the TLR rate was 8.1% ( $n=18$ ) [DM: 14.3% ( $n=9$ ), non-DM 5.6% ( $n=9$ )]. In the pooled BioSS group the TLR rate was 10.8% ( $n=24$ ,  $p<0.05$ ) [DM: 8.9% ( $n=8$ ,  $p<0.05$ ) vs non-DM: 12.1% ( $n=16$ ,  $p<0.05$ )]. After adjusting for age, sex and LM-bifurcation the OR for TLR in diabetic patients with BioSS implantation was 0.67 (95% CI 0.57 - 0.76) comparing to rDES. Further statistical analysis revealed that nominal diameters of restenotic stents in both groups were significantly smaller in DM vs non-DM subgroups (BioSS 3.41x2.69 mm vs 3.88x3.16 mm, rDES: 3.03 vs 3.36 mm). Restenotic lesions in all groups were less frequently encountered in LM bifurcations (BioSS DM vs nonDM: 12.5% vs 25%, DES DM vs non-DM 22.2% vs 44.4%).

**CONCLUSIONS** Collected data demonstrate that both BioSS stents act especially well in diabetic population comparing with rDES. This finding might suggest the stent design is more important in bifurcation lesions treatment than the drug.

**CATEGORIES CORONARY:** Diabetes

**KEYWORDS** Dedicated bifurcation stent, Diabetes, Drug-eluting stent restenosis

### TCT-396

**Percutaneous Coronary Interventions in Chronic Total Occlusions Performed by Radial Approach: A Multicentric Registry**

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**BACKGROUND** The use of trans-radial approach (TRA) to treat coronary complex lesions like chronic total occlusions (CTO), is increasing thanks to low rate of access site complications, good percutaneous coronary interventions (PCI) results and advances in material technology. The aim of the study was to retrospectively review the procedural and clinical results of PCI for CTO lesions performed by radial approach by radialists working in centers with an high number of PCI performed by radial approach.

**METHODS** we collected clinical and procedural data of CTO PCI performed using radial approach in the period from January 2008 to April 2014. Primary end-points were PCI success (stent implantation with residual stenosis < 20% and TIMI 3) and patient success (PCI success in a first or second attempt). Access site complications, cardiac intraprocedural complications and in-hospital major cardiac adverse events (MACEs: cardiac death, myocardial infarction (MI), re-PCI or CABG) were also assessed.

**RESULTS** Seven centers afferent to the Italian Radial Club (an association of Italian centers dedicated to the dissemination of the radial approach between interventionalists) participated to the study. A total of 359 TRA PCI of CTO lesions in 347 patients were performed. The selection of the CTO lesions to be treated by TRA was done according to the operator choice. The complexity of CTO lesions treated was: tapered lesions in 43.7%, stump lesions in 40.4%, microchannels in 36%, occlusion site not visible and/or caput medusae in 14% of cases. CTO length was > 20 mm in 87.5% of cases. Majority of PCI (98.9%) were performed by antegrade approach with a double radial approach for collateral injections in 20% of cases. Only 4 cases were performed using a biradial retrograde approach. A 6 F guiding catheter was used in the majority of cases (95.8%). In only 22 patients (6%) was needed to switch from radial to femoral approach. The PCI success rate was 69% and patient success rate was 71%. In successful cases, stents were implanted in the majority (97.2%) with a mean number of stents per patients of  $1.7 \pm 0.9$ . The rate of drug eluting stents use was 91%. There were only 1 access site complication (pseudoaneurism of radial artery solved by compression) and only 4 cardiac intraprocedural complications (pericardial effusions). The rate of in-hospital MACEs was 1.7% with 1 cardiac death, 1 MI, 3 re-PCI and 3 patients undergoing CABG.

**CONCLUSIONS** According to our multicentric retrospective registry TRA to treat CTO lesions, deemed feasible with this approach by an expert operator, is safe and associated with a good procedural and patient success.

**CATEGORIES CORONARY:** Complex and Higher Risk Procedures for Indicated Patients (CHIP)

### TCT-397

**10-year outcome after complete versus incomplete revascularization of patients with multivessel coronary artery disease**

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**BACKGROUND** The importance of complete revascularization remains unclear and contradictory. This study compares the long term