DM was identified as a strong independent predictor of stroke (HR = 3.09; 95% CI 1.75-5.42). TLR (HR = 2.10; 95% CI 1.30-3.38, p < 0.002) and TVR (HR = 1.66; 95% CI 1.15-2.39, p = 0.006).

Conclusions: Among this large series of consecutive pts undergoing LM PCI, DM was not associated with an increase in death or ST, but was independently predictive of stroke, TLR and TVR at 6-year follow-up.

TCT-417
Left Ventricular Assist Improves 90 Day Outcomes With Unprotected Left Main PCI

Alan W. Heldman,1 Mauricio G. Cohen,2 Simon Dixon,3 Jeffrey W. Moses,4 Igor F. Palacios,5 Ashish Parshad,6 William W. O’Neill7
1University of Miami, Miller School of Medicine, Miami, FL, 2University of Miami Miller School of Medicine, Miami, United States, 3Beaumont Hospital, Royal Oak, MI, 4NewYork-Presbyterian Hospital/Columbia University Medical Center, New York, New York, 5Massachusetts General Hospital, Boston, Massachusetts, 6Banner Good Samaritan Medical Center, Phoenix, AZ, 7Henry Ford Hospital, Detroit, Michigan

Background: Patients with severe left ventricular (LV) dysfunction undergoing intervention (PCI) on the unprotected left main coronary (ULM) or the last remaining conduit (LRC) are susceptible to peri-procedural heart failure or hypotension which may limit the effectiveness of revascularization efforts. Methods: The Protect II trial compared an LV assist device (Impella 2.5) to intra-aortic balloon counterpulsation (IABP) in patients undergoing high risk coronary intervention. We compared 90 day outcomes from the subset of study subjects treated with ULM or LRC intervention. Results: A total of 448 patients were treated in the Protect II trial and of these 102 underwent ULM (34 Impella, 58 IABP) and 506 had LRC (15 impella, 18 IABP) PCI per protocol definition. Of the ULM/LRC cohort (N = 102), 50% had class 3 or 4 heart failure, and the mean LVEF was 41.4%. Procedural differences between the two groups included a trend for more use of rotational atherectomy (RA), (22.4% vs 9.4%, p=0.07) with Impella; when RA was used, patients on Impella were treated with longer atherectomy runs (94.1 vs 36.5 sec, p=0.026). Duration of device support was much shorter (1.6 vs 10.8 hours, p=0.013) with Impella compared to IABP. Comparing 90 day composite major adverse cardiac and cerebrovascular events (MACCE) of death, large myocardial infarction (MI) with CK-MB > 3 times the upper limit of normal, stroke, or repeat revascularization procedures, Impella use was associated with less MACCE compared to IABP use (16.7% vs 34.0%; p = 0.006). The majority of SIs (96%) had pre-procedure TIMI 3 flow. During the procedure, neither guide wire protection nor intervention was performed in any SB. At post-procedure, SB occlusion was detected in only 3 cases, representing a 4.2% SB compromise rate. Importantly, there were no adverse clinical events during hospitalization associated with SB occlusion. Conclusions: In the prospective, non-randomized, single-arm, multi-center DESolve Nx trial, SB compromise - as determined by vessel occlusion after implantation of the novel DESolve biodegradable vascular scaffold, was relatively low (4.2%) and was not associated with adverse clinical events during index hospitalization.

TCT-420
First- versus Second-generation Drug-Eluting Stents for the Treatment of Coronary Bifurcations

Charis Costopoulos,1 Azeem Latib,2 Toru Nagamasa,3 Sanjeev Batavariaju,1 Mauro Carloini,1 Aladue Chieffo,2 Santo Ferrariello,1 Filippo Figini3,4,5,6,7,8,9,8,10,11
1San Raffaele S. Raffaele, Milano, Italy, 2Ospealse San Raffaele, Milan, Italy, 3San Raffaele Scientific Institute, Milan, Italy, 4University of Milan, Milan, Italy, 5Neraglia Scientific Institute, Milan, Italy, 6San Raffaele scientific institute, Milan, Italy, 7San Raffaele scientific institute, Milan, Italy, 8EMO GVM Centro Cuore Columbus/San Raffaele Hospital, Milan, Italy

Background: Randomized controlled trials have demonstrated that second-generation drug-eluting stents (DES) for the treatment of obstructive coronary artery disease is associated with comparable, if not improved, clinical outcomes as compared to first-generation counterparts. The aim of this study was to compare the long-term clinical outcomes associated with first- versus second-generation DES for the treatment of coronary bifurcation lesions. Methods: This was a retrospective study of consecutive de novo bifurcation lesions, excluding those at the left main, treated with either second-generation DES (everolimus-eluting or zotarolimus-eluting stents) between October 2006-October 2011 (199 bifurcation lesions in 192 patients) or first-generation DES (sirolimus-eluting or paclitaxel-eluting stents) between April 2002-December 2005 (289 bifurcation lesions in 273 patients).

Results: Second-generation DES use in this setting was associated with less major adverse cardiac events (MACE) (23.1% vs 14.4%, p = 0.02) as well as lower target vessel revascularization (TVR) (11.8% vs 8.3%, p = 0.01) at 2-year follow-up. Target lesion revascularization, both per patient (12.6% vs 7.4%, p = 0.02) and per bifurcation (11.8% vs 7.0%, p = 0.03), was also improved with second-generation DES over the same follow-up period. Propensity-score adjusted analysis suggested that first-generation DES was an independent predictor of both MACE (HR 0.53; 95% CI 0.33-0.85; p = 0.01) and TVR (HR 0.44; 95% CI 0.24-0.85; p = 0.01). Conclusions: Our results suggest that the use of second-generation DES for the treatment of bifurcation lesions is associated with better clinical outcomes as compared to first-generation DES, largely due to a lower need for repeat revascularization.