procedure-related complications were observed, hospital and 30 day clinical outcomes appeared to be good. However, further evaluation is needed.

### TCT-231

**World's First Series of Left Main Bifurcation Treated with the AXXESS 4.0 x 9 mm Dedicated Bifurcation Stent**

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**Background:** Percutaneous coronary intervention (PCI) of left main stem (LMS) bifurcation is technically challenging and remains the focus of active research. Currently, LMS bifurcation lesions in the presence of concomitant complex coronary disease are preferentially treated with coronary artery bypass grafting (CABG). However, LMS lesions with low Syntax scores have similar long term results with PCI in comparison to CABG. There are deficiencies with current two stent bifurcation techniques namely being ostial side branch (SB) stenosis. The role of dedicated bifurcation stents is expanding in this arena. We describe the world's first series of treating LMS bifurcation lesions using a 7-French compatible self-expanding, nitinol-based, biolimus-coated, 4.0 x 9 mm AXXESS stent.
**Methods:** Patients with bifurcation lesions were prospectively enrolled in this study. The AXXESS stent was deployed at the carina followed by drug eluting stent (DES) deployment in the distal main vessel (MV) or SB if indicated. The procedures were carried out by experienced operators with a special interest in bifurcation lesion treatment.
**Results:** Ten patients were treated with the 4.0 x 9 mm AXXESS dedicated bifurcation stent in two high-volume centres in the UK. All patients had true bifurcation lesions and 90% patients required an additional stent in either the distal MV, SB or both. The device was successfully deployed in all cases which translated into a lesion success rate of 100%. Following a six-month follow-up, no major adverse cardiac events were observed.
**Conclusions:** Our data suggest that the 4.0 x 9 mm AXXESS dedicated bifurcation stent can be safely used and successfully delivered to treat appropriate LMS bifurcation lesions with excellent peri-procedural success rates and six-month outcome data. We anticipate presenting six-month follow-up data with optical frequency domain imaging.

### TCT-232

**Outcomes for Percutaneous Coronary Intervention versus Coronary Artery Bypass Graft Surgery for Unprotected Left Main Coronary Artery Occlusion presenting as ST Elevation Myocardial Infarction**

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**Background:** Current guidelines recommend percutaneous coronary intervention (PCI) as the initial mode of revascularization for patients presenting with ST elevation myocardial infarction (STEMI), however there is an ongoing debate on the mode of revascularization for unprotected left main coronary artery (ULMCA) occlusion presenting as STEMI with limited data available in this field. Here we compare the outcomes in patients undergoing PCI vs coronary artery bypass graft surgery (CABG) for ULMCA occlusion STEMI.
**Methods:** We studied consecutive adults presenting with STEMI who had a critical ULMCA occlusion (>50%) at The Cleveland Clinic between 9/2005 – 9/2013. They were categorized on the basis of revascularization strategy – CABG, PCI or medical treatment. Our primary endpoint was in-hospital mortality, 30-day mortality and all-cause mortality.
**Results:** A total of 72 patients (mean age 67.25 ± 14.14 years, 54.2% men) had ULMCA occlusion with STEMI (LM alone 29.2%). Out of which, 26 patients (mean age 66.2 ± 17.1 years, 50% men, 46.2% LM alone, syntax score 25.96 ± 7.63, 50% in cardiogenic shock, EF 38.77 ± 14.59%) underwent PCI, 38 patients (mean age 65.8 ± 12.1 years, 60.5% men, 23.7% LM alone, syntax score 26.92 ± 8.76, 26.3% in cardiogenic shock, EF 39 ± 15.39 %) underwent CABG, while 8 patients had medical therapy alone. In-hospital mortality rates were significantly lower in patients who underwent PCI as compared to CABG, 30 day mortality tended to be lower with PCI, at a mean follow up of 2.92 ± 2.71 years, all-cause mortality was similar in both groups (Table 1).

**Table 1. Outcomes for PCI vs CABG for ULMCA occlusion presenting with STEMI**

| Outcomes | PCI (N=26) | CABG (N=38) | P-value |
|---|---|---|---|
| In - hospital Mortality, % (n) | 15.4 (4) | 34.2 (13) | 0.04 |
| In - hospital mortality, presenting with cardiogenic shock, % (n) | 30.8 (4/13) | 60 (6/10) | 0.08 |
| In - hospital Stroke, % (n) | 0 | 5.2 (2) | - |
| In - hospital MI, % (n) | 3.8 (1) | 0 | - |
| In - hospital MACCE, % (n) | 15.4 (4) | 34.2 (13) | 0.04 |
| 30 - day mortality, % (n) | 19.2 (5) | 34.2 (13) | 0.09 |
| All-cause mortality, % (n) | 38.5 (10) | 39.5 (15) | 0.46 |

**Conclusions:** Prognosis is guarded with high mortality irrespective of modality of revascularization strategy in ULMCA occlusion presenting with STEMI. However, patients undergoing PCI had a significant decrease in overall in-hospital mortality and tended to show a decrease in in-hospital mortality for patients presenting with cardiogenic shock.

### TCT-233

**Comparison of Drug-eluting Stent Implantation With Coronary Artery Bypass Graft Surgery in Patients With Unprotected Left Main Coronary Artery Lesions and SYNTAX Score ≤32: Impact of Second-generation Drug-eluting Stent**

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**Background:** Limited data are available on the clinical outcomes of second-generation DES (2nd DES) in patients with unprotected left main coronary artery (LMCA) lesions. We aimed to compare the clinical impacts of 2nd DES (everolimus-eluting stent [EES] and biolimus-eluting stent [BES]) with those of sirolimus-eluting stent (SES) and coronary artery bypass graft (CABG) in patients with unprotected LMCA lesions and SYNTAX score ≤32.
**Methods:** We identified 333 patients with unprotected LMCA lesions and SYNTAX score ≤32 between January 2003 and December 2012. The event rates of all-cause death, cardiac death, target vessel revascularization (TVR), and major adverse cardiac cerebrovascular events (MACCE: all-cause death, myocardial infarction [MI], stroke, and TVR) and the composite endpoints including death, MI, and stroke were compared between SES, EES/BES, and CABG. The exclusion criteria were previous PCI/CABG and acute MI within 24 hours from the onset.
**Results:** Of the 333 patients, 111 underwent implantation of SES, 58 EES/BES (EES, 18 and BES, 40), and 164 CABG. No significant differences existed in baseline characteristics. Cardiac death did not significantly differ between the 3 groups. At 2 years, all event rates of CABG except cardiac death were significantly lower than those of SES and not significantly different from those of EES/BES. Moreover, TVR and MACCE of EES/BES were significantly lower than those of SES
**Conclusions:** In patients with unprotected LMCA lesions and SYNTAX score ≤32, the clinical outcomes of EES/BES were better than those of SES and not significantly different from those of CABG.