device and/or procedure related perioperative (≤30 day) death, target-limb major amputation, and target vessel revascularization.

RESULTS Of 1006 subjects at 79 sites in the US enrolled by September of 2017, 602 and 200 subjects completed follow up at 30-day and 6-month respectively. Of those who completed 30-day follow up, pre-Lutonix® DCB dilatation was performed with cutting /scoring balloons in 77 patients of which 28 were VascuTrak cases. At 6-months, data was available for 25 subjects in the cutting balloon/scoring group of which 16 were VascuTrak cases. The mean lesion length was 70.7 mm (75.1 mm VascuTrak) respectively. Acute device and procedure success (i.e., <30% residual stenosis of the target lesion after treatment and no complications prior to hospital discharge) was 84.4% (85.7% VascuTrak). Among the 602 subjects enrolled, 4.3% had major flow limiting dissections; however, there were no major dissections in the overall cutting/scoring balloon subgroup. At 30 days, target lesion revascularization (TLR) and target vessel revascularization (TVR) were 1.3% and 2.6% respectively for the cutting /scoring balloon group (0% and 0% for VascuTrak). Device-related serious adverse events (SAE) were 0%. At 6-month and post 30-day follow up, TLR and TVR were 0% and 0% respectively. Device-related SAE were 0%. All-cause death occurred in 0% of the cutting /scoring balloon group.

CONCLUSIONS Preliminary data from a subgroup analysis of the SAFE-DCB US registry showed high procedural and device success, low TLR and TVR, and low device-related SAE using focal-force scoring balloons. Of particular note, the use of the VascuTrak balloon pre- Lutonix® DCB demonstrated no TLR or TVR, SAEs, or patient deaths at 6 months. A larger registry for cutting/scoring balloon pre-DCB is need to validate these early observations.

IMAGING

CRT-400.00

Long-term Multislice Computed Tomography Coronary Angiography (CTCA) RESULTS For Bioresorbable Vascular Scaffold (BVS) In Clinical Practice. A BVS-Expand Project

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BACKGROUND Little is known about the use of CTA in real-world patients treated with BVS.

METHODS The BVS Expand Registry is an investigator initiated, prospective, mono-center, single-arm study. In- and exclusion criteria have been described elsewhere. Eighteen (+six months) after the index procedure, eligible patients underwent a CTCA. Main exclusion criteria for CTCA follow-up were: contrast medium allergy, severe renal insufficiency, TLR before CTCA. Additional CT perfusion was indicated when a significant non-occlusive stenosis (≥ 50%) in target vessel was seen on CTCA by an expert CTCA reader. Long-term BVS CTCA success was defined as: percentage diameter stenosis (%DS) of target vessel < 50% on CTCA or a CT perfusion without perfusion deficits. BVS CTCA failure was defined as: target lesion occlusion or restenosis ≥ 50% in the target vessel on CTCA with ischemia on CT perfusion.

RESULTS Between September 2012 and September 2014, a total of 227 patients were included in the BVS Expand Registry. Eligible for CTCA were 179, 29 declined and 5 had previous TLR, resulting in a study population of 145 patients with a total of 202 lesions. Mean age was 60.0±10.2 years, 77.9% were male and 12.1% were diabetic. 58.6% presented with ACS (NSTEMI and UAP). The following lesion characteristics were present: 37.5% calcified lesions, 46.8% long (> 20 mm) lesions, 35.4% AHA/ACC type B2/C lesions, 4.7% CTO. Average lesion length was 19.2mm (IQR 15.2-28.5mm) and number of scaffold per patient was 1.9. In 4/145 (2.8%) patients CTCA images were of poor quality and for that reason excluded from analysis. Hundred thirty-four (95.7%) showed long term success with either no-luminal narrowing (70.7%), diameter stenosis < 50% (22.9%) or DS>50% without ischemia on perfusion (2.1%). Six (4.3%) patients did not meet criteria for BVS CTCA success and might be considered as asymptomatic target lesions failure.

CONCLUSION CTCA was able to evaluate most BVS treated patients at follow-up, where additional perfusion imaging was a valuable addition, needed only in a small group of patients. BVS performance in complex real-world patients, showed good results, as analyzed by CTCA.

CRT-400.01

Assessment Of Elasticity Of The Thoracic Aorta Using Diastolic Flow: Validation Of A New MR Method

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PURPOSE To assess the value of aortic diastolic flow measured by cardiac magnetic resonance (CMR) imaging as a marker for thoracic aorta elastic properties in Marfan syndrome (MFS) patients.

MATERIALS AND METHODS CMR imaging was performed in 146 patients with MFS to measure systolic, diastolic flow, diastolic ratio (diastolic flow divided by systolic flow), distensibility at the descending aorta at the level of the pulmonary bifurcation, and pulse wave velocity (PWV) of the total aorta at baseline and after 3 years of follow-up. Diastolic ratio was also measured in 10 non-Marfan controls.

RESULTS During 3 years of follow-up, diastolic ratio decreased from 23.8 to 20.3 ($p<0.001$), Diastolic ratio was lower in Marfan patients than controls (15.9 vs 21.2, $p=0.03$), distensibility decreased from 3.6 $mmHg^{-1}$ to 3.3 $mmHg^{-1}$ ($p=0.007$), aortic diameter at the diaphragm increased from 20.5 mm to 20.9mm ($p<0.001$), and proximal descending aorta diameter from 23.6 mm to 24.2 mm ($p<0.001$). Diastolic ratio was found to have a significant negative correlation with age ($r=-0.295$, $p<0.001$), aortic diameter ($r=-0.294$, $p<0.001$), and PWV of the total aorta ($r=-0.360$, $p<0.001$), and a significant positive correlation with distensibility ($r=0.318$, $p<0.001$). While no correlation was found with diastolic or mean arterial blood pressure. Interestingly, patients developed aortic dissection ($n=3$) during follow-up were having a lower diastolic ratio at baseline compared to the patients without a dissection (7.9 versus 24.2, $p=0.008$).

CONCLUSION Diastolic ratio measured by CMR can be regarded as a new easy method for assessment of thoracic aorta elastic properties.

CRT-400.03

ABSTRACT WITHDRAWN

CRT-400.04

Immediate And In-hospital Outcome Of Percutaneous Transvenous Mitral Commissurotomy In Patients With Mitral Restenosis After Previous Surgical Commissurotomy

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BACKGROUND Rheumatic fever and rheumatic heart disease continue to be the major health problem in all developing countries including Bangladesh. Percutaneous Transvenous mitral Commissurotomy (PTMC) is an established non-surgical modality for the treatment of severe rheumatic mitral valve stenosis. The purpose of this study was to evaluate our immediate and in-hospital results of Percutaneous Transvenous Mitral Commissurotomy(PTMC) in patients with restenosis with previous mitral surgery(CMC).

METHODS The study group included 990 consecutive patients who underwent PTMC between May 2003 and December 2012. Safety, efficacy and in-hospital results of percutaneous transvenous mitral commissurotomy were analyzed in 900 patients underwent PTMC without previous CMC (group 1) and compared with 90 those of with previous CMC (group 2).

RESULTS Baseline demographic and clinical characteristics were similar in the 900 patients without previous CMC (group-1) and the 90 patients with previous CMC (group-2) during the procedure. In the whole study group mitral valve area (MVA) was 0.85 ± 0.09 cm2 prior to PTMC, and increased to 1.76 ± 0.07 cm2 after the procedure ($p = 0.0001$). The mean increase in MVA was 0.78 ± 0.31 cm2 in the group-1 and 0.79 ± 0.41 cm2 in the group-2 (NS). During the procedure or in-hospital after PTMC, embolic events were recorded in 3 patients in group-1 and 2 patients in group-2 (NS). The frequency of minor hematoma at puncture site in 15 patients in group-1 vs 13 patients in group-2 and the development of pericardial tamponade and urgent