

**CONCLUSIONS** The data from this single center feasibility trial indicate that the CorPath robotic system can be successfully used to treat PAD. Technical and clinical procedural success was obtained in all 20 patients and no device-related peri-procedural adverse events were reported. Further studies are needed to confirm the results and elucidate their impact on outcomes.

**CATEGORIES ENDOVASCULAR:** Peripheral Vascular Disease and Intervention

**KEYWORDS** Peripheral vascular intervention, Robotics

**TCT-808**

**Evaluation of the Multilayer Flow Modulator in the Management of Complex Thoracoabdominal Aortic Pathology: A Systematic Review and Metaanalysis**

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**BACKGROUND** The aim of this review is to consider evidence for the Multilayer Flow Modulator (MFM) device in management patients with complex thoracoabdominal aortic aneurysm (TAAA) or dissection.

**METHODS** A methodical search of all health databases was conducted from January 2008 to 2015 for health related and biomedical science literature, pertaining to the MFM. Primary outcome was aneurysm-related survival. Secondary outcomes were all-cause survival, stroke, spinal cord ischemia, renal impairment and branch vessel patency

**RESULTS** A total of 15 studies (3 prospective studies, 3 observational reviews and 9 case reports) were included. The mean age of patients was 68.85years (+/-12.34 years), mean aneurysm diameter was 6.67cm (±1.57cm). Technical success reported in 15 studies was 77.2 %. Aneurysm related survival at one year was 78.7% (±3.92%). One year all-cause survival was 53.7 % (±3.94%). There were no reported cases of spinal cord ischemia or renal insult.

**CONCLUSIONS** The MFM appears safe in management of TAAA, once operators abide to its Indications for Use. Since the MFM is a new technology, there is paucity of long-term follow-up data, a lack of comparative studies and a requirement for randomized clinical trials and continued assessment.

**CATEGORIES ENDOVASCULAR:** Peripheral Vascular Disease and Intervention

**KEYWORDS** Meta-analysis, Multilayer Flow Modulator, Thoracic aorta

**TCT-809**

**Abstract Withdrawn**

**TCT-810**

**"The Phantom Streamliner" as a Therapeutic Option in the Management of Total Body Thoraco-abdominal Aortic Pathology[TAAA]. Early Results.**

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**BACKGROUND** The Multilayer flow Modulator (MFM) increases visceral branch outflow velocities by up to 8% in TAAA. The phantom Streamliner configuration generates double renal outflow percentage increase. Moreover, there are differences in flow lamination between anatomical and ballerina outflow configurations to the iliac arterial tree.

**METHODS** Out of 13 patients managed by Phantom Streamliner configuration, of which 10 were males with mean age of 69.57+/-9.8 years. Mean aneurysm diameter was 6.4cm with mean aneurysm length of 26.96cm. All were ASA IV. There were four Crawford type II, IV with AAA, seven supra/juxta-renal AAA and two complicated type B dissection.

**RESULTS** Numbers of side branches covered were 61 branches with mean of 4.7 side branch per case. Total numbers of stent used were 63 with mean of 6.25 MFM stents per case. There were no aneurysm-related death, no paraplegia nor stroke, no renal impairment and no

loss of branch patency. Quantile-Quantile plot demonstrated that mean aortic length; diameter and thrombus are statically lower at post op from pre op with alpha level of 5%. Moreover, there was evidence of postoperative lower thrombus volume with no change in total volume from pre to post. Length and diameter demonstrated the most significant change. The aortic lumen barely hits any significance. There were a decrease in mean diameter, length and thrombus signifying a different mechanism in remodeling and laminar flow.

**CONCLUSIONS** Phantom Streamliner is a promising technology, safe with physiological modulation of TAAA with off the shelf availability and must be utilized under strict IFU.

**CATEGORIES ENDOVASCULAR:** Peripheral Vascular Disease and Intervention

**KEYWORDS** Aortic aneurysm, Aortic dissection, Multilayer Flow Modulator

**TCT-811**

**Comparison of Outcomes of Different Revascularization Strategies for Femoro-popliteal Disease: A Network Meta-analysis**

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**BACKGROUND** Controversy exists regarding the best revascularization strategy for femoro-popliteal disease. We performed a network meta-analysis of randomized controlled trials (RCTs) in patients underwent peripheral endovascular intervention for femoro-popliteal lesion to seek relative clinical outcomes of drug-coated balloon (DCB), drug-eluting stent (DES), or bare-metal nitinol stent (BMS) compared with balloon angioplasty (BA).

**METHODS** MEDLINE/PubMed, Cochrane CENTRAL, EMBASE, and ClinicalTrials.gov were searched for RCTs comparing two treatment modalities among DCB, DES, BMS, or BA in patients with femoro-popliteal disease. Mixed treatment comparison model generation was performed to directly and indirectly compare DCB, DES, and BMS on outcomes including target lesion revascularization (TLR), primary patency, death, and amputation at 12 and 24 month with BA. Odds ratios with 95% confidence intervals (OR [95% CIs]) were generated with random-effect models to compare outcomes.

**RESULTS** Our meta-analysis included 15 RCTs with 2,843 patients that were randomized to DCB (n=752), DES (n=288), BMS (n=581), or BA (n=1,222). The mean age was 68.3±15.4, 65% were male, 41% had coronary artery disease, 84% had hypertension, 41% had diabetes mellitus, 11% had re-stenotic lesion, 32% had total occlusion, 7% had critical limb ischemia, baseline ankle-brachial index of 0.68±0.38, and baseline lesion length of 68.7±72.0 mm. At 12 month, DCB significantly reduced the risk of TLR (OR 0.29 [95% CI 0.13-0.56]), and DCB (OR 0.41 [95% CI 0.22-0.74]) and BMS (OR 0.61 [95% CI 0.36-1.00]) significantly improved primary patency compared with BA. DES had a trend toward improvement in primary patency and TLR compared with BA.

