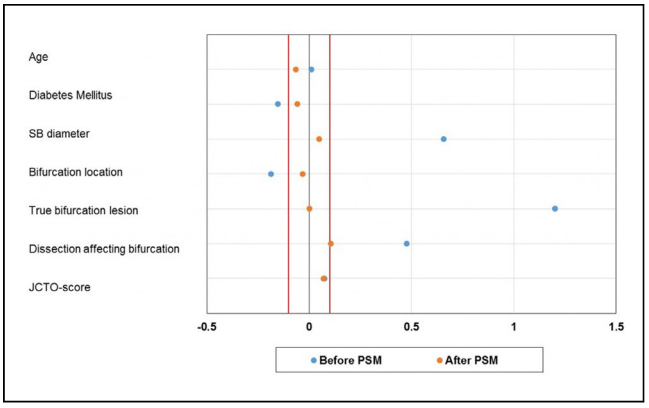
p=0.08). After PSM, there were no differences between groups with regard to immediate and follow-up results, although a complex strategy was associated with worse procedural metrics (Contrast volume (ml): 367±111 vs 301±103, p< 0.01; radiation (Gy/cm2): 452.8±208.1 vs 354.1±303.7, p= 0.04; fluoroscopy time (min): 61.2±27.7 vs 47.7±28.9, p= 0.04).



CONCLUSION BLs in CTO can be approached as is done for regular BLs, for which provisional stenting is considered the technique of choice. After PSM, there were no differences in procedural and mid-term clinical outcomes between simple and complex strategies.

CATEGORIES CORONARY: PCI Outcomes

TCT-460

Clinical Impact of Complete Coronary Revascularization by Percutaneous Coronary Intervention in Patients with Chronic Total Occlusion in the First and Newer Drug-Eluting Stent Generation Era

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BACKGROUND Large data have shown that complete coronary revascularization is associated with an improvement prognosis in term of mortality in patients with multivessel disease. Moreover different studies suggest that the newer generation of drug-eluting stent (DES) performs better in term of procedural results and composite cardiovascular events than the first generation of DES. The aim of this study is to evaluate the clinical impact in term of mortality of complete coronary revascularization by PCI in a "real world" patients with chronic total occlusion (CTO) in the first and the newer generation DES era.

METHODS From the Florence CTO-PCI registry all consecutive patients who underwent a PCI for CTO from 2003 to 2015. Patients with successful PCI received DES. Patients were divided in two groups according to the first (2003-2008) and newer (2009-2015) generation DES era. First generation DES: Sirolimus eluting stent (Cypher; Cordis Corp., Miami Lakes, Florida, USA) and Paclitaxel eluting stent (Taxus®; Boston Scientific, Natick, MA, USA). Second generation DES: Everolimus eluting stent (Xience V®, Abbott Vascular, CA, USA and Promus Element, Boston Scientific, Natick, Massachusetts USA). Cardiac survival analysis was performed by Kaplan-Meier method. The independent predictors associated with long-term cardiac mortality were assessed by Cox multivariable analysis. Interaction analysis was performed by multivariable analysis.

RESULTS Overall, 1396 patients underwent a CTO-PCI attempt; n=682 (49%) in the first generation DES era, while n=714 (51%) in the newer generation DES era. Successful CTO-PCI was higher in the new generation DES era than the first one (84% vs. 73%; p=<0.001) and as a consequence a complete coronary revascularization was achieved more frequently in the newer DES era (73% vs 62%; p<0.001). Long-term mortality rate (3 years) was similar between patients treated in the first and in the newer DES era (91 ± 1.2% vs. 94 ± 1.0%; p=0.23). By multivariable analysis the adjusted complete revascularization was strongly and inversely related with long-term mortality (HR 0.33; p<0.001). No interaction was found between complete revascularization and the generation DES era (p=0.206).

CONCLUSION As expected, the newer DES era is associated with an improvement of successful CTO-PCI driven by development in technique, technology, strategy and operator'skill. Anyway, when a complete coronary revascularization was achived whatever the DES era, the clinical benefit in term of mortality was strong and similar.

CATEGORIES CORONARY: Stents: Drug-Eluting

NOVEL MITRAL VALVE THERAPIES

Abstract nos: 461 - 465

TCT-461

6 Month Outcomes of Transcatheter Annular Reduction Therapy (TART) with the ARTO™ System for Functional Mitral Regurgitation

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BACKGROUND The ARTO™ System (MVRx, San Mateo, CA) is a Transcatheter Annular Repair Therapy (TART) that modifies the mitral annulus to improve leaflet coaptation in patients with functional mitral regurgitation and systolic heart failure. The MAVERIC trial was designed to evaluate the safety and performance of the ARTO™ System in these patients.

METHODS MAVERIC is a prospective, single arm study conducted in 8 sites in 4 countries and has enrolled 45 patients. Key inclusion criteria are symptomatic systolic HF with NYHA Class II-IV and FMR grade ≥ 2+.Exclusion criteria consist of clinical variables that preclude feasibility of the ARTO procedure and significant structural abnormality of the valve. Primary outcomes are the major adverse event rate at 30 days post-procedure, MR grade change from baseline to 30 days and procedural device success. Additional planned clinical/echo follow-up is at 180 days and yearly for 3 years. Clinical outcomes are CEC adjudicated and all echo parameters are analyzed by an echo core lab. 30 day data on 45 patients was presented at EuroPCR 2017. This presentation will report the 6 month follow-up on these patients.

RESULTS At baseline, mean age of the patients is 70 +12, 60% are male, LVEF 40 +9, prior PCI 33%, prior MI 38%, atrial fibrillation 44% and COPD 21%. Results to date: 30 day outcomes on 45 patients include 0 deaths, 0 myocardial infarctions and 0 strokes and 100% device technical success including no incidence of LCX compression. There were 2 major adverse events in the first 30 days: a pericardial effusion which was surgically drained without recurrence and one acute kidney injury post-procedure which has resolved without sequalae. From baseline to 30 days, there were meaningful improvements in MR, LV volumes and functional measures. 71% of patients had MR grade 3+/4+ at baseline and at 30 days 86% were Grade 0 to 2+ (p<0.0001). Regurgitant volume decreased from 43.1 ± 12.1 to 23.6 ± 9.7ml. (p<0.0001). NYHA functional class status improved from 71% in Grade III/IV at baseline to 73% in Class I and II at 30 days. Currently, all of these measures are stable or improved out to 3 years.

CONCLUSION The MAVERIC trial establishes the safety and efficacy of the ARTO system in the treatment of FMR associated with systolic HF. Key highlights of the study include a very low rate of adverse events accompanied by structural improvements in cardiac function and clinical status.

CATEGORIES STRUCTURAL: Valvular Disease: Mitral

TCT-462

Two-years Echocardiographic Changes After Neochord Procedure

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