

needs further investigation to establish the safety and efficacy of this regimen.

TCTAP A-153

Outcomes of Bare-metal Stents Versus Drug-eluting Stents in Patients in Primary Coronary Intervention for Patients with Acute Coronary Syndrome

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BACKGROUND The use of Drug-eluting stents (DES) is effective compared to the use of Bare-metal stents (BMS) only in the prevention of restenosis. In acute coronary syndrome (ACS) patients, the superiority of the DES use in the cardiovascular outcomes is conflicting.

METHODS We retrospectively compared BMS and DES in primary coronary intervention for patients with ACS admitted to 2 institutions between January 2013 and July 2014.

RESULTS We consecutively included 158 patients treated with BMS and 160 patients treated with DES. The background of ACS patients was not different except for previous myocardial infarction (MI) (BMS: 7.0% vs. DES: 15.6%; $p < 0.02$) and types of ACS (unstable angina, non-ST elevation MI, ST elevation MI).

Used stent size and length were significantly larger (BMS: 3.27 ± 0.4 mm vs. DES: 2.87 ± 0.03 mm; $p < 0.01$) and shorter (BMS: 17.1 ± 0.4 mm vs. DES: 20.9 ± 0.5 mm; $p < 0.01$) in the BMS-treated group than the DES-treated group. During the follow-up period (9.9 months), there were no significant differences in the target lesion failure (BMS: 10.8% vs. DES: 9.4%; $p = 0.33$).

CONCLUSION In ACS patients, there were no significant differences those receiving BMS and those receiving DES in the outcome of death and MI. The use of DES could not be proven to have superiority in primary coronary intervention for patients with ACS, and then the use of BMS is still a useful option.

TCTAP A-154

Experience of the Management of Complex Long Lesion by Indigenous Bio-mime MORPH Tapering Stents

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BACKGROUND Coronary artery lesions are often long and tortuous necessitating overlapping stents during angioplasty. Indigenous Biomime MORPH tapering stents from Meril are a new alternative.

This prospective, observational study documents our experience with the use of Meril Biomime Morph stent in varied coronary anatomy and clinical scenarios and their clinical follow-up over six months.

METHODS Patients, in whom Biomime Morph stents were used, as were indicated during the procedure at our center during the period January to March 2016, were followed up clinically. Data regarding the stents, lesion anatomy and procedure details were tabulated and analyzed.

RESULTS 56 Biomime morph stents were implanted during the specified time in 52 patients. Of these, 64%, 7% and 29% were deployed in LAD, LCx and RCA respectively. Use in CTO lesions constituted 8 (14%) lesions. Mean stent length was 53.2 mm with 60 and 50 mm stents being used in 32% and 68% lesions respectively. Use of guidezilla to track the stents up to the lesions was required in only 6 (10.7%) lesions. There was no evidence of foreshortening on post-deployment IVUS study. No clinical events were recorded on a 9 month follow up.

CONCLUSION Biomime Morph from Meril is a more anatomically acceptable and cost-effective option in diffuse or tandem coronary lesions. There is no question of overlapping stents. It requires less procedural time and provides good clinical outcomes. Ultimately large scale metacentric study with long-term follow-up is needed regarding its future.

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One-year Clinical Outcomes of Biodegradable Polymer Coated Sirolimus-eluting Coronary Stent System in Patients with Coronary Artery Disease

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BACKGROUND The biodegradable polymer-coated Sirolimus-eluting Coronary Stent (SES) System for the treatment of atherosclerotic lesions has been implanted in a real-world patient population. The aim of the present study was to evaluate the safety and performance of Metafor Sirolimus-eluting Coronary Stent System (SES) in consecutive patients with atherosclerotic lesions in a real-world patient population.

METHODS This was a retrospective, observational, postmarketing study. We retrospectively collected and analyzed the data for 251 patients who underwent percutaneous coronary intervention (PCI) at the Sunshine Heart Institute from August 2015 to August 2016. We collected and analyzed data for 251 patients with atherosclerotic lesions who were implanted with Metafor SES and followed clinically/telephonically at one-year. We observed and analyzed major adverse cardiac event (MACE) defined as the aggregate of cardiac death, myocardial infarction (MI), and any target lesion revascularization (TLR) at one-year. Also, stent thrombosis (ST) was observed at one-year patients follow-up.

RESULTS We collected and analyzed the data for 251 patients. Out of them 251 participants, 191(76.1%) were males, 95 (37.8%) patients had diabetes, 117 (46.6%) had ST-segment-elevation myocardial infarction (STEMI), and 134 (53.4%) had hypertension. Mean patient age was 56.35 ± 11.23 years. A total of 295 lesions were treated, out of which 13.6% of the lesions were the long lesion of ≥ 40 mm. At one-year, MACE occurred in 4 (1.6%) of 251 patients, consisting of 2 (0.8%) cardiac deaths, 2 (0.8%) MI, and 0 (0%) TLR. Stent thrombosis was reported in one patient (0.4%).

CONCLUSION This retrospective data demonstrated excellent safety and performance of Metafor SES in a "real-world" consecutive atherosclerotic lesions patient, indicating low rates of MACE and ST at one-year follow-up.

TCTAP A-156

Impact of Drug-eluting Stent or Bare-metal Stent in Long Term Prognosis of Patients with ST Elevation Myocardial Infarction

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BACKGROUND The efficacy and safety of drug-eluting stent (DES) in patients with ST-elevation myocardial infarction (STEMI) is previously studied. According to the previous studies, DES decreases target vessel revascularization (TVR) compared with bare-metal stent (BMS) and it could improve patient's prognosis in long-term. However, evidences of a long-term prognostic effect of DES in patients with STEMI are limited.

In this study, we aimed to assess long-term prognosis after DES or BMS for patients with STEMI.

METHODS In this study, we chose patients with STEMI who treated by any of DES or BMS during the primary percutaneous coronary intervention (PCI). Patients with STEMI but do not receive any stent during primary PCI were excluded. The primary endpoint was all-cause mortality and the secondary endpoint was composite of recurrent myocardial infarction, revascularization, and heart failure. Cox proportional hazard regression and Kaplan-Meier survival estimation were used for long-term prognostic analysis.

RESULTS A total of 541 patients with STEMI were initially selected and 52 patients didn't receive any stent during primary PCI. Therefore, those 52 patients excluded and the final study population consisted of 489 patients. DES and BMS were implanted in 42 patients (8.6%) and 447 patients (91.4%), respectively. Baseline characteristics were differed between two groups. Median follow-up was 29.3 months (IQR 13.7; 42.6) for the primary endpoint and 14.3 months (IQR 4.9; 33.1) for secondary endpoint. Cox proportional hazard regression analysis revealed that DES didn't associate with increased mortality (HR 0.53, 95% CI 0.13-2.20, $p = 0.384$) compared with BMS. However, DES was associated with a trend toward decreased rate of the secondary endpoint (HR 0.51, 95% CI 0.26-1.0, $p = 0.051$) compared with BMS. Furthermore, Kaplan-Meier survival curve analysis was confirmed those results.