Stents - Bare Metal

Washington Convention Center, Lower Level, Hall A

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TCT-638

Five-year Clinical Outcomes of Drug Eluting Stents Versus Bare Metal Stents in Patients With Large Vessel and Single Coronary Lesion

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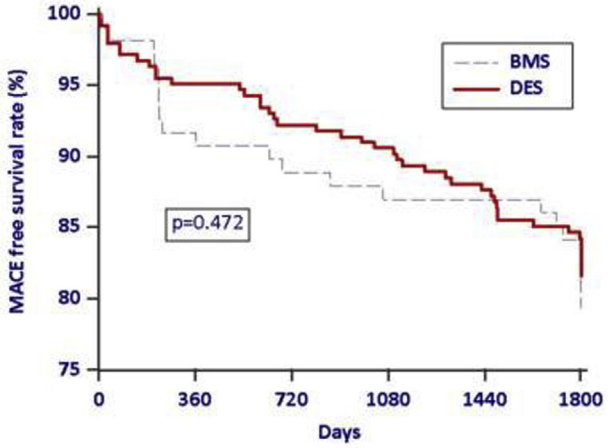
Background: The aim of this study is to evaluate long term clinical outcomes of drug-eluting stent (DES) and bare metal stent(BMS) with large vessel diameter and single coronary lesions for 5 years.
Methods: A total of 428 consecutive patients who visited 3 medical centers from March 2003 to April 2007 and had a single coronary lesion which was treated with the use of a DES or BMS that was more than 3.5 mm in diameter were enrolled in this study. Patients were divided into 2 stent groups: DES (n=299), BMS (n = 129). The study end point was a composite of major adverse cardiac events (MACE) including death, myocardial infarction (MI), and target-vessel revascularization (TVR) for five years
Results: Baseline characteristics were not different. 5 years follow up rate was 82.5% (355/428). The cumulative MACE rate for 5 years were not different between two group (20.4% in BMS vs. 18% in DES, p=0.592). The rate of MI (3.1% in BMS vs. 2.4% in DES, p=0.513), death (3.7% in BMS vs. 2.0% in DES, p=0.361) and TVR (12% in BMS vs. 10.6% in DES, p=0.694) were not different. There was no difference in MACE-free survival rate between the DES group and the BMS group (93.1% in DES vs 90.7% in BMS, P=0.472).
Conclusions: Clinical outcomes between DES and BMS are similar in a large vessel diameter and single coronary arterial lesion for 5 years.



TCT-639

Impact Of The Length Of Bare Metal Stent On Clinical Events After Percutaneous Coronary Intervention In Current Clinical Practice

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Background: Stents length has traditionally been considered a predictor of events after percutaneous coronary intervention (PCI), especially with bare metal stents (BMS). This fact has encouraged interventional cardiologist to cover severe lesions with the least possible stent length ("spot-stenting technique"). However, newer stents may have reduced the importance of its length in the prediction of events. Ojective:to assess the impact of the length of bare metal stents in cardiovascular events after PCI.
Methods: We prospectively included 243 lesions treated with PCI and a long BMS (>30 mm) in 218 consecutive patients (76.9% male , 68.7±11.1 years) from January 2012 to April 2013. After a minimum follow-up of 1 year, we evaluated the presence of major cardiac adverse events (MACE): mortality, nonfatal myocardial infarction (MI), stent thrombosis (ST), need for target lesion revascularization (TLR).
Results: 40% had stable ischemic heart disease, 27.5% Non-STEMI and 32.5% STEMI. 35.9% were diabetic. Vessel treated with a long BMS was the left anterior descending (LAD) in 10.7% of cases, circumflex in 5.4%, right coronary artery (RCA) in 82.1% and saphenous vein graft in 1.8%. 1.8% were bifurcations, 7.1% chronic total occlusions and 25% acute occlusions. Mean stent length and diameter were 35.6±3.2mm and 3.4±0.4mm. Predilatation was done in 51.8% of lesions and postdilatation in 23.2% of them. Maximum inflation pressure was 17.3±1.5 atm. Angiographic success was 100%. One year MACE rate was 7.1%: 6 patients died (2.46%): 3 of them had cardiogenic shock and died during the first day of admission and 3 died for non cardiovascular causes. No MI neither ST were observed. TLR rate was 1.8%. MACE rate and results were comparable with those of a similar cohort treated with BMS < 30 mm.
Conclusions: In current clinical practice, newer generations of long stents allow not only to treat increasingly complex lesions, but also, we can reduce the number of stents per procedure resulting in a substantial economic impact. With new designs and materials, the length of BMS is not such an important predictor of adverse events as in the past, especially avoiding small vessels and bifurcated lesions.

TCT-640

MGuard™ Stent Reduces Early Adverse Events In Saphenous Vein Graft Percutaneous Coronary Intervention

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Background: Saphenous vein graft (SVG) percutaneous coronary intervention (PCI) carries unique technical challenges due to the soft and friable nature of the SVG lesions, increasing the risk of adverse events associated with distal embolization. Our objective was to evaluate the efficacy of the MGuard™ stent to prevent early adverse events.
Methods: The present analysis enrolled consecutive patients with SVG lesions percutaneoulsy treated at two Institutions with distinct strategies. At the public institution, all patients were treated with the dedicated MGuard stent while at the private hospital SVG PCI was performed with regular DES. Distal protection filters were available at both hospitals and their use was left at operator's discretion. The primary objective included the occurrence of in-hospital major adverse cardiovascular events (MACE), composite of death, non-fatal myocardial infarction and target lesion revascularization (TLR).
Results: A total of 271 patients were evaluated, 51 in the MGuardTM group and 220 patients in the DES group. Most of baseline characteristics were statistically similar in both groups, however MGuard patients had more renal insufficiency (25.9% vs. 12.5%; P = 0.001), and previous myocardial infarction (58.8% vs. 35.9%; P = 0.003). There were less in-hospital major adverse cardiovascular events in the MGuardTM cohort (1.96% vs. 13.6%; P = 0.014, OR 7.89, CI 1.05-59.3), exclusively due to the difference in periprocedural myocardial infarction (1.96% vs. 13.6%; P = 0.014), with none in-hospital death or TLR in both groups. Conversely, at 1 year clinical follow up, MACE rate was significantly higher among patients treated with MGuard (14.28% vs. 4.4%; P = 0.01, OR 0.24, CI 0.07-0.76), with no statistically difference in cardiac death (2.38% vs. 2.56%; P = 0.94) or myocardial infarction (4.76% vs. 0.64%; P = 0.09), but markedly more TLR in the MGuardTM group (7.14% vs. 1.28%; P = 0.048).
Conclusions: The dedicated MGuard stent have been effective in reducing periprocedural MI, although the higher occurrence of one-year target-lesion restenosis offset this initial benefit when compared to drug-eluting stents.

Stents - Drug-Eluting: Stent Thrombosis

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Improved Safety and Reduction in Stent Thrombosis After Everolimus-Eluting Stents Versus Sirolimus-Eluting Stents in Patients With Coronary Artery Disease: SORT OUT IV 5-year

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