successes were achieved in 95% of cases. Type B2/C lesions were treated in 63% of cases.

Conclusions: The DESyne BD NECSS demonstrated sequential non-inferiority and observed at 12 months and 24 months (DoCE 2.7% vs 3.2% p = 0.05), a trend toward non-inferiority of the DESyne BD compared to the control (0.12% vs 0.24% p = 0.003), with a final clinical success rate of 89.7% vs 92.0% (p = 0.003). Excellent clinical results at 6 months were demonstrated for both devices. DoCE (2.7% vs 3.2%, p = 1.0). Sustained low clinical event rates were observed at 12 months and 24 months (DoCE 2.7% vs 3.2% p = 1.0).

Conclusions: The DESyne BD NECSS demonstrated a low-inferiority and superiority over a durable polymer Endeavor ZESCS for in-stent late lumen loss at 6 months. Clinical events remained low through 24 months suggesting long term safety.

TCT-202 Impact of Pioglitazone on Cardiovascular Events in Patients with Type-2 Diabetes Mellitus after Drug-eluting Stent Insertion

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Background: Pioglitazone is widely used for glycemic control in patients with type-2 diabetes mellitus (DM), and is associated with a lower risk of cardiovascular events according to a meta-analysis of randomized trials. To evaluate the effect of pioglitazone on ischemic cardiovascular events in Japanese patients with DM and coronary artery disease (CAD), we analyzed from the J-DESsERT trial. A Randomized Trial (J-DESsERT) was analyzed.

Methods: In this prospective, multicenter trial, 3,533 patients were randomized 1:1 to undergo coronary stenting with Sirolimus-eluting stents or Paclitaxel-eluting stents. Lesion lengths were <46 mm, with vessel diameters from 2.5 to 3.75 mm. Randomization was stratified based on the presence or absence of DM. Definitions for allocation into the DM group at the time of this trial were: 1. Previous DM diagnosis; 2. Currently on diabetic medication (oral hypoglycemic drugs or insulin injections); 3. HbA1c (Japan diabetes society [IDS]) ≥ 6.5% within 30 days before the procedure. Patients who met one or more of the above criteria were allocated to the DM group. A total of 1,705 patients (48%) with DM were analyzed from the J-DESsERT trial.

Results: Target vessel revascularization (TVR) defined as any ischemia-driven repeat percutaneous coronary intervention (PCI), target vessel bypass surgery, all death, myocardial infarction (Q wave and non-Q wave), and cerebrovascular accident (stroke, transient ischemic attack). Including TVR, major adverse cardiac events (MACE) occurred in only 22 of 357 patients (6.3%) receiving pioglitazone at 12 months. Conversely, substantially more MACCE events occurred in the group not receiving the pioglitazone, 152 of 1,384 patients (11.0%, p < 0.01).

Conclusions: Pioglitazone is associated with a significantly lower MACE rate at both 8 and 12 months, in Japanese patients with DM, post-DES implantation.

TCT-203 Mid-term Follow-Up Results of Drug-eluting Stent Implantations Following Rotational Atherectomy for Heavily Calcified Lesions: Impact of the Second-generation Drug-eluting Stent

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Background: The purpose of this study was to evaluate the impact of second-generation DES (2nd DES) as compared with first-generation DES (1st DES) in patients treated with DES implantation following rotational atherectomy (RA) for heavily calcified lesions.

Methods: From December 2003 to August 2012, 616 lesions in 492 patients were treated with DES (Sirolimus-eluting stent [SES] or Paclitaxel-eluting stent [BES]) or 2nd DES (Everolimus-eluting stent [EES] or Biolimus-eluting stent [BES]) implantations following RA exclusively and successfully. Of these lesions, 389 lesions in 312 (63.4%) patients who had undergone 8-month angiographic follow-up were analysed.

Results: Though pre-PCI reference vessel diameter was less in EES group than BES group (EES: 2.1 ± 0.34; BES: 2.25 ± 0.28 mm, p = 0.05), there were no significant differences in patient characteristics, pre-PCI minimal lumen diameter (MLD) (0.69 ± 0.36 vs. 0.71 ± 0.41 mm) and angiographic percent diameter stenosis (PDS) (67.8 ± 17.1 vs. 69.3 ± 18.7, p = 0.7). Post-PCI MLD of BES group was smaller than those of EES group. (1.96 ± 0.31 vs. 2.08 ± 0.31 mm, p = 0.05) Post-PCI PDS (11.0 ± 10.9 vs. 3.3 ± 10.5 %) and acute gain (1.31 ± 0.46, 1.44 ± 0.47 mm) were similar in both groups.

Conclusions: In this real life cohort, the treatment of highly complex lesions with the Osiro Stent was associated with excellent long-term results. Further randomized trials are warranted to confirm these findings.
TCT-205
One-year outcome of percutaneous coronary intervention with a modern
drug-eluting stent in patients with moderate and severe coronary calcification:
A pooled analysis from the Nobori-2 and e-Nobori all-comer registries
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Background: Percutaneous coronary intervention (PCI) of moderate and severely
calculated lesions has been described as a predictor of worse outcomes when bare-
metal stents or first-generation drug-eluting stents (DES) have been used. Little is
known about the impact of coronary calcification on outcome after PCI with modern
des.
Methods: 14,134 patients treated with a biolimus A9-eluting stent with a biodegrad-
able polymer (Nobori-2 and e-Nobori). An independent clinical event committee adjudicated all
adverse events and an independent corelab analyzed baseline and adverse events’
angiograms. Patients were divided into 2 groups based on whether or not PCI was
performed on moderate/severely calcified lesions. Target lesion failure (TLF), defined
as cardiac death, target vessel-related myocardial infarction and target lesion revas-
cularization, and stent thrombosis were assessed at 1 year.
Results: Overall, 4321 patients (30.6%) had moderate/severe coronary calcification.
Patients with calcified lesions were older and had a higher rate of diabetes mellitus,
hypertension, renal failure, peripheral arterial disease and previous bypass surgery, but
less commonly presented with an acute coronary syndrome. Patients with calcified lesions more commonly required multivessel treatment and needed longer stents. Pre-
and post-dilatations were more often performed in the calcified lesions group. Rotational atherectomy or cutting balloons were used in only 5.49%. Preliminary data
at 1-year follow-up (currently available in 9,089 patients) revealed low rates of TLF and
stent thrombosis, but both were significantly higher in patients with moderate/severe
calcification (TLF in 5.03% vs. 2.83%, p < 0.001, stent thrombosis in 0.72% vs.
0.34%, p = 0.03). By multivariate analysis, the presence of moderate/severe calcifica-
tion was a strong independent predictor of TLF at 1-year (OR 1.77, 95%CI 1.23-
2.55, p = 0.002).
Conclusions: Moderate/severe coronary calcification independently predicts increased
rates of TLF at 1-year after PCI with the biolimus A9-eluting Nobori stent, but overall
stent performance remains excellent and event rates are surprisingly low.

TCT-206
Angiographic efficacy of Resolute Zotarolimus- or Everolimus- Eluting Stent
versus Sirolimus-Eluting Stent Implantation in Long or Diabetic Coronary
Artery Disease: Result from LONG-DES III, IV, and ESSENCE-DIABETES
trials
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Background: This study was performed to assess angiographic outcomes of newer
generation drug-eluting stent (NDES) [everolimus-(EES) or resolute zotarolimus-
eluting stents (R-ZES)] versus sirolimus-eluting stents (SES) for long or diabetic
coronary artery disease.
Methods: Patients level data from three randomized trials (LONG-DES III, IV and
ESSENCE-DIABETES) were pooled to estimate angiographic efficacy of EES or
R-ZES versus SES. A total of 1,250 patients underwent EES or R-ZES (NDES group,
n = 623) and SES (SES group, n = 627). We evaluated angiographic restenosis after
DES implantation at follow-up duration.
Results: Follow-up angiography was done in 919 patients (73.5%). In-stent (3.0% vs.
4.4%, p = 0.28) and in-segment restenosis (5.0% vs. 5.2%, p = 0.86) was also statisti-
cally not different between NDES vs. SES group. In-segment restenosis was similar
between NDES vs. SES group in diabetics (3.9% vs. 6.7%, p = 0.22), 30 mm long
significant lesions. In all patients, the restenosis and TLR rates were similar between
2 groups in HD patients (30.2 vs. 32.3%, p = 1.0 and 30.2% vs. 29.0%, p = 1.0, respectively). Table shows quantitative angiographic outcomes.

Conclusions: Premarket and PMS trials assessing E-ZES implantation had similar
3-year composite outcomes. Differences in CD-TVCR were attributed to different
protocol requirements and in MIs to different outcome definitions. It is yet to be
determined if these settings reflect everyday practice.