Conclusions: At 5-years EES was superior with regards to efficacy and safety to PES in non-diabetic patients. In diabetic patients a late trend towards reduction of MACE was observed with EES compared to PES, mainly driven by a lower rate of TVR.

TCT-590

Three-Year Clinical Follow-Up of the FIREHAWK Abulumino Groove-Filled Biodegradable Polymer Sirolimus-Eluting Stent in the Treatment of Single De Novo Native Coronary Lesions: The TARGET I Trial

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Background: We sought to investigate the long-term outcomes of an abluminal groove-filled biodegradable polymer sirolimus-eluting stent FIREHAWK (MicroPort Medical, Shanghai, China) compared to an everolimus-eluting stent (EES) XIENCE V in the randomized TARGET I trial.

Methods: A total of 458 patients with single de novo native coronary lesions (< 24 mm in length and a coronary artery >/= 2.25 to < 4.0 mm in diameter were enrolled in the TARGET I study, a prospective, randomized, non-inferiority trial. The primary endpoint was in-stent late lumen loss (LLL) at 9-month follow-up. The secondary endpoint, target lesion failure (TLF), was defined as the composite of cardiac death, target vessel myocardial infarction (TV-MI), and ischemia-driven target lesion revascularization (iTTLR). Clinical follow-up was scheduled at 1-, 6- and 12-month, and annually up to 5 years for all enrolled patients. All adverse clinical events were adjudicated by an independent committee.

Results: Previously reported results demonstrated FIREHAWK stent was non-inferior to XIENCE V EES for the primary endpoint of 9-month in-stent LLL (0.13±0.24 mm vs. 0.13±0.18 mm, p=0.94; difference and 95% confidence interval 0.01 [-0.04 to 0.04] mm; p for non-inferiority <0.0001), and had a comparable clinical outcome at 2 years. There were still no significant differences between the two groups up to 3 years, and no definite/probable stent thrombosis occurred in FIREHAWK group. (Table)

TCT-592

Lower Five Year Event Rates In The Genous Endothelial Progenitor Cell Capturing Stent Compared With A Drug Eluting Stent In de Novo Coronary Artery Lesions With A High-risk Of Restenosis; A Randomized Controlled Trial

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Background: These are the first long-term randomized adjudicated trial data of five year results of the Genous bio-engineered endothelial progenitor cell capturing stent (OrbusNeich BV, Fort Lauderdale, FL, USA) compared with a paclitaxel-eluting stent (PES).

Methods: In this prospective randomized trial, patients with de-novo coronary artery lesions carrying a high risk of restenosis (chronic total occlusion,length > 23mm,vessel diameter < 2.8mm or any lesion in a diabetic patient) were randomized 1:1 to the Genous or a PES. The current primary endpoint is adjudicated target vessel failure (TVF) at 5-years, a composite of cardiac death, myocardial infarction (MI) and target vessel revascularization. Clinical event rates were estimated by Kaplan-Meier balances between trials confirmed non-significant differences between stent type and clinical outcomes. The trend for a higher definite stent thrombosis rate in the Genous group was by multivariate analysis less prominent (HR 2.05 [CI95% 0.75-5.60]; p=0.16).

Conclusions: At 1-year the biodegradable polymer-coated Genous has similar safety and efficacy outcomes as the durable polymer-coated EES. Longer follow-up data is needed to determine the role of biodegradable polymer-coated EES in real world clinical practice.