CONCLUSIONS The new generation DES decreases SF, especially in the LAD. The ratio of SF is higher in RCA than LCA, and not improved even in new generation DES.

CATEGORIES CORONARY: Stents: Drug-Eluting

KEYWORDS Drug-eluting stent, First-generation drug-eluting stent, Stent fracture

TCT-583
Comparison of the NOBORI Biolimus-Eluting Stent and the XIENCE/PROMUS Cobalt Chronium Everolimus-Eluting Stent in Patients With De novo Long Coronary Artery Lesions

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BACKGROUND Long stenting after first-generation drug-eluting stents (DES) implantation was associated with adverse cardiac events. However, it remains unclear whether long stenting after newer-generation DES implantation has an impact on clinical outcomes. Our aim was to compare clinical outcomes of the Nobori biolimus-eluting stent (BES) and the Xience/Promus cobalt chromium everolimus-eluting stent (CoCr-EES) in patients with de novo long coronary artery lesions.

METHODS A total of 2272 patients with 3146 lesions undergoing BES (1270 patients with 1751 lesions) and CoCr-EES (1002 patients with 1395 lesions) implantation between February 2010 and July 2012 were analyzed. Of these, 1310 patients with 1528 lesions (BES, 753 patients with 877 lesions; CoCr-EES, 557 patients with 651 lesions) had de novo coronary artery lesions, defined as total stent length >28 mm. We assessed the rates of major adverse cardiac events (MACE), defined as a composite of cardiac death, non-fatal myocardial infarction (MI), definite stent thrombosis, and clinically driven target lesion revascularization (TLR) within 2-year.

RESULTS Baseline patient and lesion characteristics were similar between BES and CoCr-EES groups. Total stent length was not significant different between the 2 groups (1270 patients with 1751 lesions) and CoCr-EES (1002 patients with 1395 lesions) implantation between February 2010 and July 2012 were analyzed. Of these, 1310 patients with 1528 lesions (BES, 753 patients with 877 lesions; CoCr-EES, 557 patients with 651 lesions) had de novo coronary artery lesions, defined as total stent length >28 mm. We assessed the rates of major adverse cardiac events (MACE), defined as a composite of cardiac death, non-fatal myocardial infarction (MI), definite stent thrombosis, and clinically driven target lesion revascularization (TLR) within 2-year.

RESULTS Baseline patient and lesion characteristics were similar between BES and CoCr-EES groups. Total stent length was not significant different between the 2 groups (44.7±18.5mm vs. 46.2±20.6mm, p=0.13). The 2-year MACE rate was not significantly different between both groups (11.8% vs. 14.6%, p=0.21). Cumulative incidence of cardiac death, MI, definite stent thrombosis, and clinically driven TLR rate were similar between the 2 groups (3.7% vs. 3.5%, p=0.73; 1.3% vs. 1.1%, p=0.76; 1.0% vs. 0.7%, p=0.61; 8.4% vs. 11.6%, p=0.09, respectively).

CONCLUSIONS The new generation DES decreases SF, especially in the LAD. The ratio of SF is higher in RCA than LCA, and not improved even in new generation DES.

CATEGORIES CORONARY: Stents: Drug-Eluting

KEYWORDS Drug-eluting stent, First-generation drug-eluting stent, Stent fracture

TCT-584
First- Versus Second-Generation Drug-Eluting Stents in Coronary Chronic Total Occlusions: 3-Year Results of a Multicenter Registry: A Propensity-Matched Analysis

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BACKGROUND Limited data are available on long-term clinical outcomes of the second-generation drug-eluting stents (DES) compared with the first-generation DES in patients with coronary chronic total occlusion (CTO) undergoing percutaneous coronary intervention (PCI). The aim of this study is to compare the clinical outcomes of the second-generation DES with the first-generation DES for the treatment of CTO.

METHODS Between March 2003 and February 2012, 1,006 consecutive CTO patients who undergoing successful PCI using either first-generation DES (n = 557) or second-generation DES (n = 449) were enrolled in a multicenter, observational registry. Propensity-score matching was also performed. The primary outcome was cardiac death at 3-year follow-up.

RESULTS There were no significant differences in the rate of cardiac death (1st-generation DES versus 2nd-generation DES: 3.8% vs 2.2%; hazard ratio [HR]: 0.70; 95% confidence interval [CI]: 0.33 to 1.48; p = 0.70) and MACE (14.7% vs 12.5%; HR: 0.99; 95% CI: 0.70 to 1.39; p = 0.94). After propensity score matching, the incidence of cardiac death (HR: 0.71; 95% CI: 0.32 to 1.57; p = 0.60) and MACE (HR: 0.92; 95% CI: 0.64 to 1.32; p = 0.66) were still similar in the both group. Furthermore, there were no significant differences in the rates of cardiac death and MACE between any different DES of sirolimus, paclitaxel, zotarolimus, and everolimus-eluting stents.

CONCLUSIONS This study showed that the comparable effectiveness of the second-generation DES with the first-generation DES for treatment of CTO at 3-year follow-up.

CATEGORIES CORONARY: Stents: Drug-Eluting

KEYWORDS Drug-eluting stent, everolimus, Drug-eluting stent, second generation, Long lesion treatment