drug-eluting stent (DES) compared with the second-generation durable polymer (DP) everolimus-eluting stent (EES).

METHODS Between November 2015 and October 2016, 57 lesions with DES (32 new BP-DES and 25 DP-EES) were evaluated by optical frequency domain imaging (OFDI) within 1 month after the procedure. Very early neointimal coverage was compared between BP-DES and DP-EES by OFDI.

RESULTS A total of 574 frames with 6195 struts of 32 stents in BP-DES and 494 frames with 5342 struts of 25 stents in DP-EES were analyzed. The average interval to follow-up OFDI was not significantly different between the groups (16.3 ± 7.7 days in BP-DES vs. 15.4 ± 7.4 days in DP-EES, P = 0.75). Neointimal coverage was significantly superior in BP-DES in both apposed and malapposed strut (apposed: 53.9% in BP-DES vs. 28.0% in DP-EES, P < 0.001; malapposed: 22.9% in BP-DES vs. 7.5% in DP-EES, P = 0.001). When the follow-up period was divided into < 2 weeks and > 2 weeks, neointimal coverage was also significantly superior in BP-DES (< 2 weeks: 47.7% in BP-DES vs. 19.2% in DP-EES, P < 0.001; > 2 weeks: 60.1% in BP-DES vs. 37.4% in DP-EES, P = 0.001).

CONCLUSION The new-generation BP-DES showed excellent early neointimal coverage compared with the second-generation DP-EES in both apposed and malapposed struts.

CATEGORIES IMAGING: Imaging: Intravascular

TCT-229

One-year clinical outcome of biodegradable polymer sirolimus-eluting stent in all-comer population of ULISSE registry (ULtimaster Italian multicentre all-comerS Stent rEgistry)

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BACKGROUND Delayed re-endothelialisation and inhibition of vascular repair after DES implantation, in part related to permanent polymers, are considered important determinants of target vessel failure (TVF) and stent thrombosis (ST) pathophysiology during follow-up.

METHODS The ULISSE study is a multicenter-independent, single-arm, all-comers, observational registry designed to assess safety and efficacy after biodegradable-polymer sirolimus-eluting stent (BP-SES) at 9 different centres in Italy. 1544 consecutive patients (2267 lesions) treated with BP-SES between July 2014 and August 2016 were retrospectively enrolled. The primary and secondary endpoints were target vessel failure (TVF) and target lesion revascularization (TLR) at 1-year, respectively.

RESULTS 655 (45%) patients were treated for at least one complex lesion (chronic total occlusion 9%, bifurcation 19%, very long lesion [>35 mm] 24%, unprotected left-main 4%) and most of them (51%) presented a high-risk clinical profile (diabetes mellitus 29%, chronic kidney disease 11%, previous CABG 13%, low LVEF [<35%] 5%, STEMI as clinical presentation 11%).1 year follow up was available for 1286 patients (83%) and TVF occurred in 81 (6.3 %) patients: cardiac death 24 (1.9%), myocardial infarction 24 (1.9%) and target vessel revascularization 58 (4.5%). TLR occurred in 44 (3.4%) patients. Definite ST rate was 12 (0.93%).

CONCLUSION This study provides preliminary evidence for mid-term safety and efficacy of biodegradable-polymer sirolimus-eluting stent in all-comers daily practice cohort of Italian patients, including complex lesions.

CATEGORIES CORONARY: Stents: Drug-Eluting

TCT-230

Vascular healing response to biodegradable-polymer sirolimus-eluting stent, UltimasterTM, in comparison with durable-polymer everolimus-eluting stent, XienceTM/PromusTM, assessed by optical coherence tomography and angioscopy at 10 months

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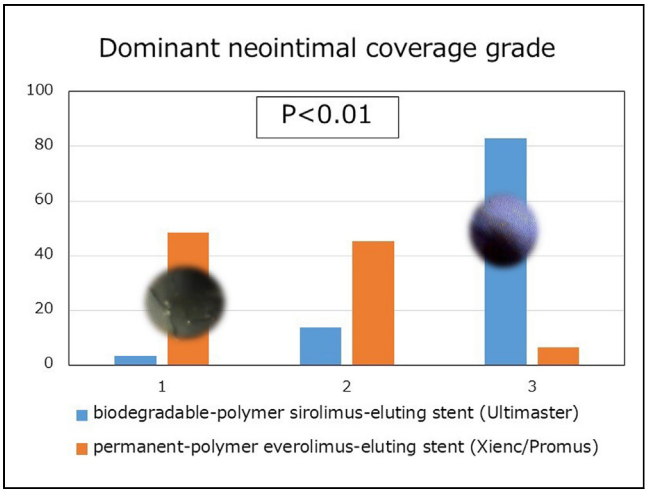
BACKGROUND Third generation biodegradable-polymer sirolimus-eluting stent (BP-SES, UltimasterTM stent) was expected to attain good arterial healing at chronic phase. We evaluated the arterial healing with angioscopy and optical coherence tomography (OCT).

METHODS In this multi-center prospective study, clinical outcome, follow-up angiography, angioscopy and OCT were evaluated at 10 months after implantation for 29 BP-SES in comparison with those for 31 permanent-polymer everolimus-eluting stent (PP-EES, XienceTM / PromusTM stent). By angioscopy, neointimal coverage (NIC) was graded into 4 groups (grade0: exposed, grade1: covered but bulging into lumen and visible, grade2: embedded but visible, grade3: invisible), and presence of intra-stent thrombus were also assessed. By OCT, the strut condition and thickness of neointima were evaluated.

RESULTS The rate of target lesion revascularization was similar between two groups (3.4% in BS-SES vs 3.2% in PP-EES, p>0.99). In angioscopy evaluation, the average dominant NIC grade was significantly higher in BP-SES compared with PP-EES (Fig). The Frequency of intra-stent thrombus was significantly smaller in BP-SES group (14% vs 39%, p<0.05). In OCT evaluation, percentage of covered struts was greater in BP-SES group (99.4% vs 97.2%, p<0.05), while average neointimal thickness was similar between two groups (132 ㎛ m vs 120 ㎛ m, p=0.37).



CONCLUSION BP-SES seemed to achieve better arterial healing at 10 months after implantation compared with PP-EES.

CATEGORIES IMAGING: Imaging: Intravascular

TCT-231

Abstract Withdrawn

TCT-232

Late clinical outcomes of diabetic patients treated with a novel third-generation drug-eluting stent: Highlights from Inspiron registry

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