

CONCLUSION In the ABSORB randomized trials, bailout device use was required in a small and similar percentage of BVS and Xience treated patients, and resulted in comparable 1-year outcomes.

CATEGORIES CORONARY: Bioresorbable Vascular Scaffolds

TCT-439

Increased incidence of revascularization in diabetic patients treated with the ABSORB everolimus-eluting bioresorbable scaffold: 24-months clinical results



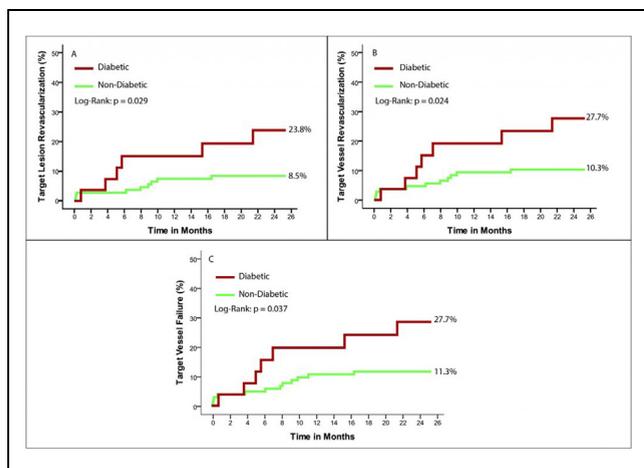
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BACKGROUND Diabetic patients are known to have an increased risk of adverse clinical events after percutaneous coronary intervention with DES. However, there was no difference in clinical outcomes between diabetic and non-diabetic patients treated with ABSORB BVS at one year in a pooled analysis of the ABSORB and the SPIRIT trials. Two-year clinical outcomes of diabetic patients after BVS implantation have not been reported. Therefore we evaluated the clinical outcomes two-year after BVS implantation in diabetic patients of the Amsterdam Absorb Registry at two-year follow-up.

METHODS Patients treated with BVS in routine clinical practice were included in this registry. Clinical outcomes assessed were Death, Myocardial Infarction (MI), Stent Thrombosis (ST), Target Vessel Revascularization (TVR), Target Lesion Revascularization (TLR) and Target Vessel Failure (TVF).

RESULTS The registry included 135 patients, of which 27 (20%) were diabetics. Diabetic patients had a significantly higher revascularization rate compared to patients without diabetes (TLR: 23.8% vs 8.5%; p=0.029 and TVR: 27.7% vs 10.3% p=0.024). Diabetic patients demonstrated also a higher incidence of the composite endpoint of TVF (27.7% vs 11.3%; p=0.037). There was no difference in the incidence of mortality, myocardial infarction or scaffold thrombosis.



CONCLUSION In a patient registry reflecting daily clinical practice, including both high-risk lesions and patients, the use of the ABSORB BVS in diabetic patients is associated with increased revascularization rates compared to non-diabetics at two-year follow-up.

CATEGORIES CORONARY: Stents; Bioresorbable Vascular Scaffolds

TCT-440

Impact of optimal implantation technique on bioresorbable scaffold expansion and one-year clinical outcomes in patients presenting with acute coronary syndromes and calcified lesions. A pooled analysis of BVS STEMI First and BVS Expand Studies



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BACKGROUND Calcified lesions represent a challenging subset with an increased risk of device underexpansion. Optimal implantation technique, namely, appropriate vessel sizing, predilatation and postdilatation has been proposed as a strategy to improve bioresorbable vascular scaffold (BVS) deployment and expansion. We evaluated the impact of optimal implantation technique on the angiographic and clinical outcomes of acute coronary syndromes (ACS) patients with calcified and non-calcified culprit lesions treated with BVS.

METHODS Patient data were pooled from the BVS STEMI First and BVS Expand studies. Patients were categorized according to lesion calcification and optimal implantation technique. Scaffold underexpansion was evaluated assessing final MLD, %diameter stenosis (%DS), %scaled residual diameter stenosis (%scDS), maximal footprint (MFP). Final TIMI flow and one-year clinical outcomes were reported.

RESULTS A total of 214 patients were evaluated. There were 68 patients (83 lesions) with calcified lesions and 146 patients (172 lesions) without calcifications by fluoroscopy. An optimal implantation strategy was significantly more often applied in the calcification group (47.0% vs 27.3%, p=0.002). In the 27 patients (39 lesions) with calcifications who were treated according to the optimal technique, there was a similar final MLD (2.4%±0.3 vs. 2.5%±0.4, p=0.142) and %DS (16.7±8.5 vs 15.0±8.4, p=0.263) as compared with the overall no-calcification group. The %scDS (24.3%±11.2 vs. 23.1%±11.2, p=0.550) and MFP (34.7%±5.2 vs 33.5%±5.6, p=0.214) were comparable between groups. There were no differences in the pre- and postprocedural TIMI flow between the groups (TIMI 3: 94.9% vs 94.8%, p=0.886). At one year follow-up there was a numerically higher rate of clinical events in calcified lesion group, although this did not reach a significant level (MACE:11.1% vs 4.8%, p=0.188).

CONCLUSION Optimal BVS-specific implantation strategy with both pre- and postdilatation allows to achieve in calcified lesion similar scaffold expansion in terms of minimal lumen diameter, diameter stenosis and scaled residual diameter stenosis as compared with non calcified lesions.

CATEGORIES CORONARY: Bioresorbable Vascular Scaffolds

TCT-441

Optical Coherence Tomography assessment of the implantation of Everolimus-Eluting Bioresorbable Scaffolds against angiographic assessment: the clinical outcomes



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BACKGROUND Bioresorbable Vascular Scaffolds (BVS) are the newest generation of stents for use during Percutaneous Coronary Intervention. However, as history has demonstrated, each development in stent technology has been associated with its own specific complications. With BVS, there are reports that recoil is greater compared to traditional metal scaffolding. Identifying stent malapposition is important, as it is associated with an increased risk of stent thrombosis. The aim of this study was to assess whether intracoronary imaging with optical computerised tomography (OCT) after implantation of a BVS resulted in significant improvements in clinical outcomes compared to visual angiographic assessment.

METHODS All patients undergoing PCI using BVS at a single centre between 2013-2015 were included (n=70). PCI with BVS was