TCT-504 Biosorbable Scaffold As Option For The Treatment Of Coronary In-Stent Restenosis: Result From Single-Centre Prospective Observational Study With Angiographic Follow-Up

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BACKGROUND The aim of this single center observational study was to investigate the feasibility of biosorbable vascular scaffold (BVS) in treatment in-stent restenosis lesions. In stent restenosis is still a relatively common problem in daily practice. Existing solutions were not fully effective so far. The use of drug-eluting stents (DES) is related with increased thrombosis risk, also drug-eluting balloon has disadvantage because the eluted-drug stays in the arterial wall only for few weeks, which is not sufficient to eliminate the risk of restenosis. Biosorbable scaffolds could be possible solution of this issue. The BVS has a number of proposed advantages over current metallic stent technology which could be helpful in providing short-term vessel scaffolding and capability of prolonged drug delivery.

METHODS Between October 2013 and January 2015, 53 Patients (61 lesions) were enrolled in single arm prospective open label study in which in stent restenosis lesions was suitable for BVS implantation. Primary endpoints were procedural success of deployment of the BVS at the target lesion and absence of in-hospital major adverse events (death, Q-wave myocardial infarction, stroke or any repeat target lesion revascularization). The mean patient age was 64 ± 12 years and 78% patients were male, 93% suffered from hypertension and 31% from diabetes. PCI procedures were performed in 87% patients presenting with stable CAD and 13% with acute coronary syndrome. According to the angiographic ISR pattern 45% lesions were focal and 55% were diffuse, the majority of the lesions was post DES ISR (79%). Procedural OCT evaluation was performed in all lesions (100%) before and post-BVS implantation. Estimate the size of the BVS was made on the basis of the IVUS examination just after first balloon predilatation. Lesion pre-dilation was mandatory and post dilatation was needed in 92% of cases. After 6 months of BVS implantation clinical evaluation was made, the next 6 months patients had performed control angiography with OCT.

RESULTS Procedural success was obtained in all cases. No in-hospital clinical events and intra-procedural or acute BVS-in-stent thrombosis were reported. Mean BVS implanted length was 30 ± 5 mm. A number of 1.6 stents were implanted per lesion. At a median of 6 months follow up 2 clinically-driven TLR (3.8% per patient) were reported due to recurrent ISR at the BVS-in-stent implantation site. No cardiac death, Q-wave MI occurred at follow-up. Re-evaluation by angiography with OCT will be obtained in next 12 months follow-up after procedure.

CONCLUSIONS The results of our study suggest that BVS is safe and technically feasible for the treatment of ISR in patients presenting with both stable CAD and ACS with reasonable midterm outcomes. Moreover, follow-up revealed a very low rate of adverse events in patients treated by BVS implantation in the context of treatment of in-stent restenosis.

CATEGORIES CORONARY: Biosorbable Vascular Scaffolds
KEYWORDS Bioabsorbable scaffolds, In-stent restenosis

TCT-505 Comparative Clinical Resource Utilization With Biosorbable Everolimus-eluting Scaffolds Vs. Metallic Everolimus-eluting Stent With Abmilinal Polymer In Contemporary Clinical Practice

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BACKGROUND Bioabsorbable everolimus-eluting scaffolds (BVS) and the P-Cr everolimus-eluting stent with abmilinal polymer (Synergy™) have shown positive clinical results in trials. However, there are important differences in the respective platforms which could impact on clinical performance during implantation.

CATEGORIES CORONARY: Bioabsorbable Vascular Scaffolds
KEYWORDS Biosorbable everolimus-eluting scaffolds, In-stent everolimus eluting stent with abmilinal polymer