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A novel approach to treat in-stent restenosis: 6- and 12-month results using the everolimus-eluting bioresorbable vascular scaffold.

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AIMS:The treatment of in-stent restenosis (ISR) remains challenging. Small case series have described successful utilisation of bioresorbable vascular scaffolds (BVS) (Absorb; Abbott Vas-cular, Santa Clara, CA, USA) to treat ISR. We report our experience with this novel ap-proach. METHODS AND RESULTS: Patients with ISR in native coronary arteries undergoing per-cutaneous coronary intervention (PCI) for ISR were treated using BVS. A total of 84 ISR lesions were treated in 65 patients. The mean age was 66 years, 28% had acute coronary syndrome (ACS) and 28% were diabetic. PCI was successful in all patients and all scaffolds were delivered and deployed successfully in the target lesion. All 65 patients had six-month follow-up and 49 pati-ents had 12-month clinical follow-up. The target lesion revascularisation (TLR) rate was 3.1% at six months and 12.2% at 12 months. The mean duration from PCI to TLR was 301 days. No scaffold thrombosis occurred during the study period.CONCLUSIONS: This proof of concept study de-monstrates that ISR treatment utilising BVS is feasible and appears to have acceptable target lesion failure rates. Prospective randomised trials are necessary to assess whether BVS are more effective than drug-eluting stents or drug-eluting balloons to treat ISR.