66-year-old man presented a non-ST-segment elevation myocardial infarction 3 years after the implantation of an everolimus-eluting stent (3.5 × 12 mm) in the proximal segment of a saphenous vein graft to a marginal branch. Coronary angiography showed focal in-stent restenosis (ISR) and optical coherence tomography (OCT) confirmed severe ISR (minimal lumen area 3.1 mm²). Notably, the tissue causing ISR had a striking heterogeneous pattern with a very bright neointima covering large lipid pools (plus signs, Figures 1A and 1A’) that obscured the underlying stent struts, highly suggestive of neoatherosclerosis. A bioresorbable vascular scaffold (BVS) (Absorb, 3.5 × 12 mm) was implanted and post-dilated at very high pressure (22 bar) with excellent angiographic and OCT results (minimal lumen area 8.5 mm²) (Figures 1B and 1B’). The classic “black box” BVS

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Manuscript received March 13, 2015; accepted March 26, 2015.
appearance (without shadowing) was readily identified fully apposed against residual tissue overlying the bright artefacts (with dorsal shadow) of the underlying metallic struts (Figures 1B and 1B). Seven months later, the patient presented with another non-ST-segment elevation myocardial infarction showing recurrent ISR on angiography. OCT disclosed that the obstructive tissue (minimal lumen area 3.3 mm²) was consistent with recurrent neoatherosclerosis (Figures 1C and 1C). A drug-eluting stent was implanted at high pressure with excellent final result.

Treatment of patients with neoatherosclerosis remains a challenge (1,2). Recently, BVS have been proposed as an attractive therapeutic strategy for patients with ISR in order to avoid the implantation of another permanent metal layer (3). To our knowledge, this is the first report of recurrent ISR following treatment of ISR with BVS. Our findings also suggest that recurrent neoatherosclerosis may develop after BVS implantation in this challenging scenario.

**REFERENCES**


**KEY WORDS** bioresorbable vascular scaffolds, in-stent restenosis, neoatherosclerosis, optical coherence tomography