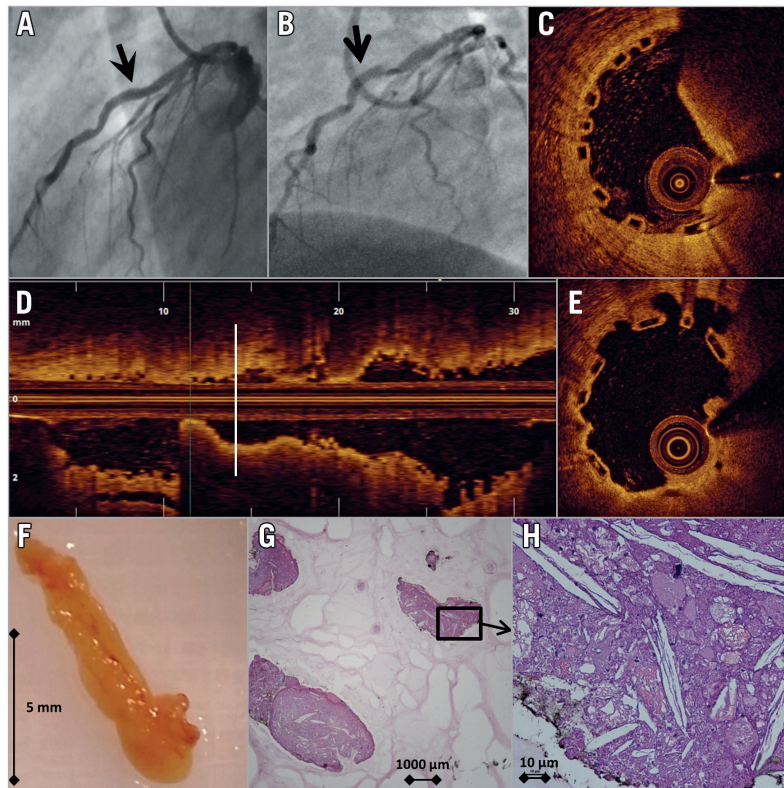


# Plaque protrusion compromising bioresorbable coronary scaffold patency



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The patient was a 53-year-old (male) suffering from unstable angina due to stenosis of the left anterior descending (LAD) artery. After 2.5 mm balloon predilatation (12 atm), a 3.0×28 mm bioresorbable vascular scaffold (BVS) (Absorb™; Abbott Vascular, Santa Clara, CA, USA) was implanted at 14 atm with an angiographically good result (**Panel A**). The patient was discharged on aspirin and clopidogrel.

Coronary angiography one month later showed a severe lesion in the distal part of the BVS, suggesting in-stent thrombosis (**Panel B**). Optical coherence tomography (OCT) confirmed mixed thrombus (**Panel C, Panel D**). With an aspiration catheter, a white structure measuring 9×2 mm (**Panel F**) was evacuated. Control OCT confirmed the disappearance of a protrusive structure, revealing an area of suboptimal BVS expansion and apposition (**Panel E**). A 3.5 mm non-compliant balloon post-dilatation (16 atm) was performed. OCT re-evaluation after one month was inconspicuous.

Platelet reactivity test (Multiplate® analyser; Roche Diagnostics Limited, Rotkreuz, Switzerland) demonstrated normal response to clopidogrel. Histologic examination of the aspirated debris revealed atherosclerotic plaque with a high concentration of cholesterol crystals, histiocytes, lymphocytes and red blood cells (**Panel G, Panel H**).

Although suggestive of in-scaffold thrombosis, this image shows the probable cause to be plaque protrusion into the scaffold lumen. The mechanism is eccentric plaque position in combination with insufficient expansion and apposition of a BVS within an angulated segment. This case emphasises the need for lesion preparation and post-implant optimisation when implanting BVS.

## Conflict of interest statement

The authors have no conflicts of interest to declare.

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