A 46-year-old patient underwent implantation of a bioresorbable vascular scaffold (BVS) (Absorb 3.5 × 28 mm, Abbott Vascular, Abbott Park, Illinois) in April 2013 for a de-novo stenosis of the right coronary artery (Figures 1A to 1B). A total of 6 months after implantation, a follow-up angiography including optical coherence tomography (OCT) was performed, showing a partial malapposition of the scaffold (Figure 1C, Online Video 1). As the patient had no angina and the angiographic picture was unremarkable, the decision was made not to treat the malapposition, for example, by implantation of a metallic stent. In October 2014, the patient was readmitted with ST-segment elevation myocardial infarction due to acute BVS thrombosis. OCT revealed insufficient wall apposition in the distal part of the scaffold with subsequent incomplete coverage with neointimal tissue and resorption as compared with proximal wall-apposed parts as potential cause for the thrombosis (Figures 1D to 1F, Online Video 2). After balloon dilation, 3 zotarolimus-eluting stents were implanted covering the whole scaffold length.

These findings underline the importance of proper wall apposition of BVS, which is best verified by OCT imaging at the time of implantation. Insufficient wall contact might lead not only to delayed coverage but also to delayed resorption with subsequent elevated risk for scaffold thrombosis.
**FIGURE 1** Angiographic and OCT Imaging at Baseline, Follow-Up, and Acute Scaffold Thrombosis

(A) Initial angiography showing the lesion before bioresorbable vascular scaffold (BVS) implantation. (B) Angiography after implantation of a BVS (Absorb 3.5 × 28 mm, scaffold markers visualized by white arrows). (C) Optical coherence tomography (OCT) of the distal BVS 6 months after implantation with documentation of insufficient wall apposition and coverage (white arrows mark the area of malapposition). (D) Angiography showing acute BVS thrombosis 18 months after implantation (scaffold markers visualized by arrows, bars mark the OCT imaging sites shown in E and F). (E) OCT of the distal BVS at the time of BVS thrombosis showing thrombus material attached to the struts and an insufficient wall apposition as potential reason for thrombosis (white arrows mark an area with malapposition and thrombus material attached to the struts). (F) OCT of the proximal BVS with good wall apposition and coverage at the time of BVS thrombosis.

**KEY WORDS** acute scaffold thrombosis, bioresorbable scaffold, optical coherence tomography

**APPENDIX** For supplemental videos and their legends, please see the online version of this article.