

IMAGES IN INTERVENTION

Coronary Artery Aneurysm With Thrombosis After Implantation of a Bioresorbable Coronary Artery Scaffold



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A 33-year-old man presented with non-ST-segment elevation myocardial infarction (NSTEMI), received a 2.5 mm × 28.0 mm bioresorbable scaffold (Absorb, Abbott Vascular, Santa Clara, California) into the left circumflex coronary artery after pre-dilation (Figures 1A and 1B). Thirteen months later, the patient experienced another NSTEMI. Coronary artery angiogram showed an aneurysm developed at the previously scaffolded site (Figure 1C). Subsequent optical coherence tomography revealed an extensive thrombus measuring 10 mm in length, adhering the aneurysmal wall and thought to be the source of distal embolization that resulted in an NSTEMI (Figures 1D to 1H, Online Video 1). The proximal reference lumen area measured 3.42 mm² with a maximal diameter of 2.35 mm and was enlarged to a maximal aneurysmal lumen area of 12.23 mm² with a maximal diameter

of 4.43 mm, whereas the in-lying thrombus prevented to measure the definite extent. To avoid further distal embolization a covered stent (PK Papyrus, Biotronik, Berlin, Germany) was implanted to seal the complete aneurysm (Figures 1I and 1J).

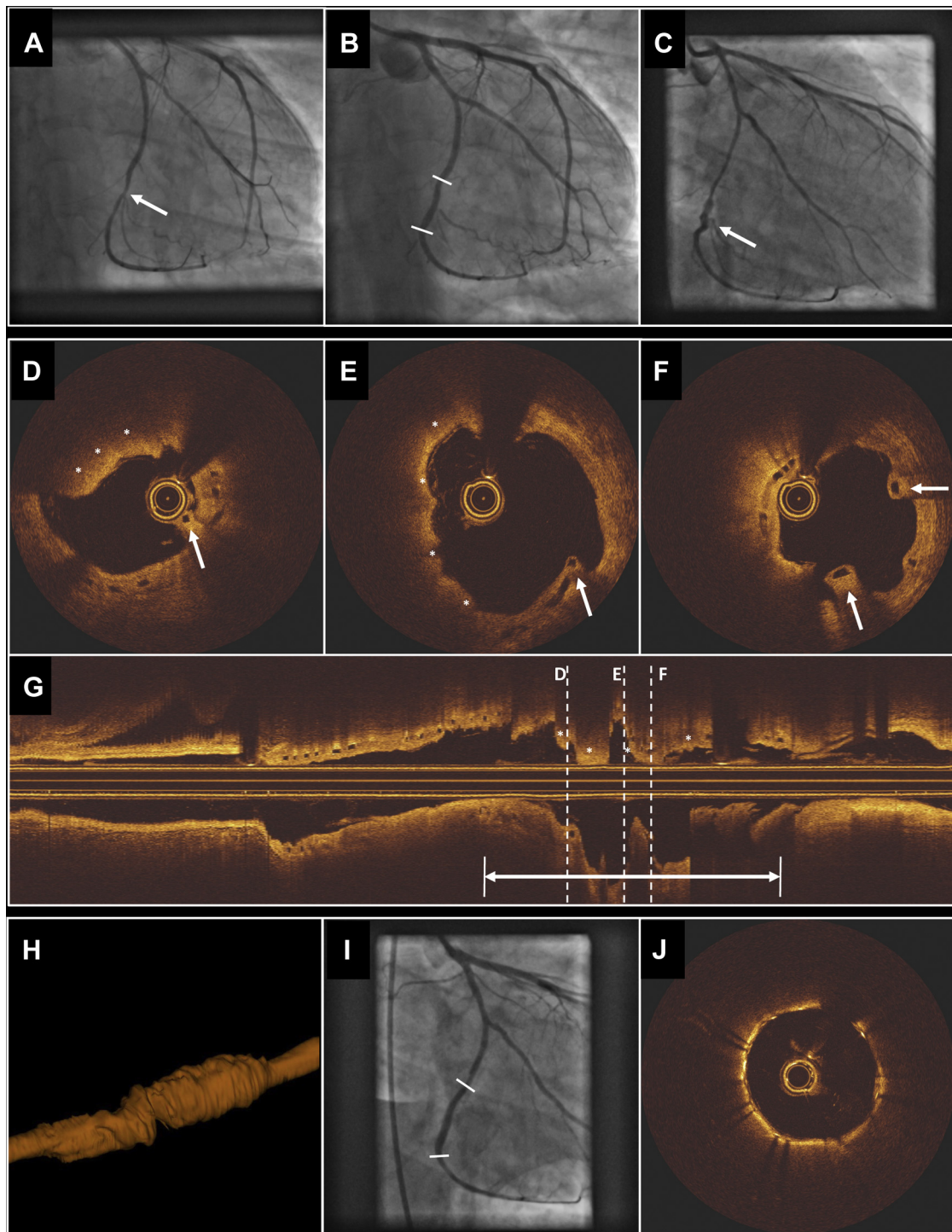
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APPENDIX For a supplemental video and its legend, please see the online version of this article.

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FIGURE 1 Images of Coronary Artery Aneurysm With Thrombus Formation After Bioresorbable Scaffold Implantation

(A) Angiography showing the culprit lesion in the left circumflex artery (**arrow**). **(B)** Angiography after implantation of a bioresorbable scaffold (**bars** indicate proximal and distal edges of the scaffold). **(C)** Angiography after 13 months, **arrow** pointing on an aneurysm at the scaffolded site. Optical coherence tomography (OCT) images revealing thrombus (**white stars**) with overhanging struts indicating scaffold fracture (**D, arrow**) and evaginations or malapposed struts (**E, F, arrows**), and (**E**) showing the maximal aneurysmal area ([Online Video 1](#)). **(G)** OCT longitudinal view demonstrating the extent of the aneurysm (**arrow**) and thrombus (**stars**). **(H)** Three-dimensional reconstruction of the aneurysm. **(I)** Angiography after implantation of a covered stent (**bars** indicate proximal and distal edges of covered stent). **(J)** OCT image after implantation of a covered stent.