

IMAGES IN INTERVENTION

Delamination of Abluminal Polymer of Biolimus-Eluting Stent

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A 76-year-old man with 80% and 90% stenosis with severe calcification in the proximal and mid-right coronary artery (RCA), respectively (Figs. 1A and 1B), was referred for coronary angioplasty. After rotational atherectomy and balloon inflation, a 23-mm everolimus-eluting stent was deployed in the proximal RCA. Delivery of a 14-mm biolimus-eluting stent (Nobori, Terumo

Corporation, Tokyo, Japan) with abluminal biodegradable polymer in the mid-RCA was attempted. It passed through the everolimus-eluting stent in the proximal RCA without difficulty. However, it would not advance to the target lesion in the mid-RCA (Fig. 1C). Additional balloon inflation was performed. A 12-mm Driver Sprint stent (Medtronic, Minneapolis, Minnesota) was then deployed in the

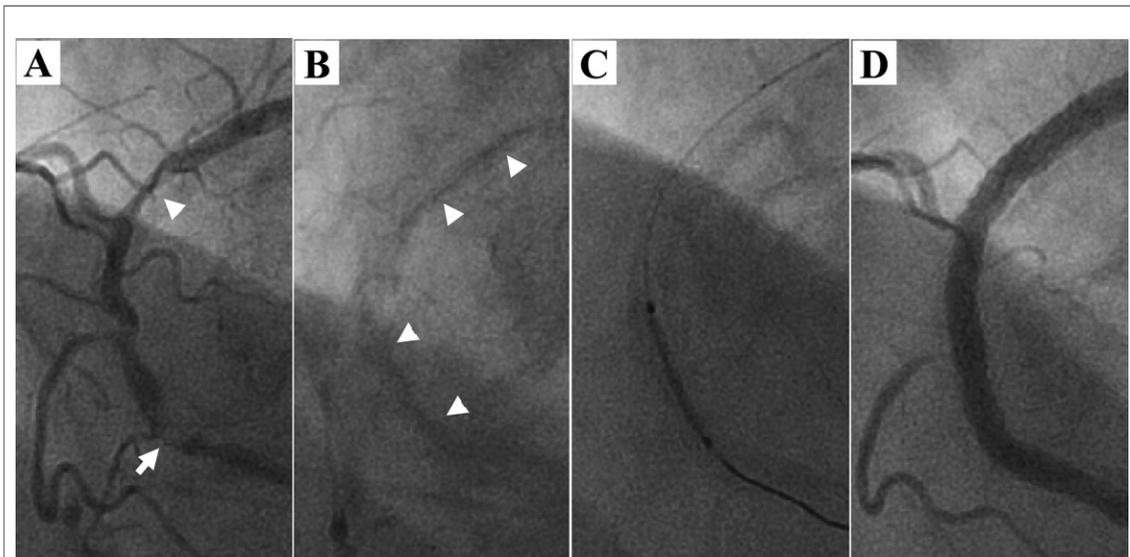


Figure 1. Biolimus-Eluting Stent Implantation in a Calcified Coronary Artery

(A) Coronary angiography showing 80% (arrowhead) and 90% stenosis (arrow) in the proximal and mid-right coronary artery, respectively. (B) Fluoroscopy demonstrates severe calcification (arrowheads) in the proximal and mid-right coronary artery. (C) A biolimus-eluting stent is not able to advance to the lesion. (D) The final angiogram shows a good result.

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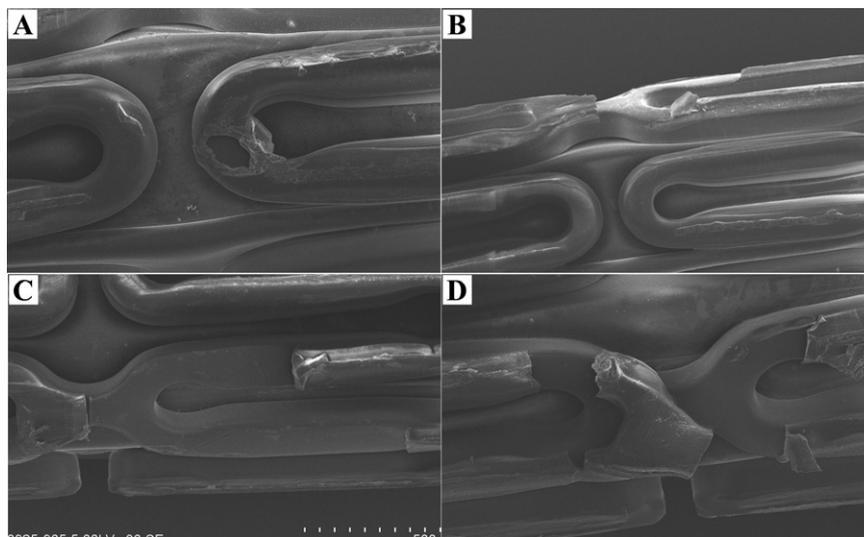


Figure 2. Scanning Electron Microscopy

Scanning electron microscopy shows damage to polymer of the biolimus-eluting stent that would not advance to the lesion (**A to D**). Note that most of the damage to the polymer is delamination of abluminal polymer (**B to D**).

mid-RCA. The final angiogram showed a good result (Fig. 1D). Scanning electron microscopy demonstrated damage to the polymer of the biolimus-eluting stent; most of the damage was delamination of abluminal polymer (Figs. 2A to 2D).

The Nobori stent has biodegradable polymer (poly-lactic acid) containing biolimus A9 that is coated only on the abluminal stent surface. Compared with polymer around

stent struts, delamination of abluminal polymer might occur more easily when it is delivered through a calcified coronary artery.

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