

IMAGES IN INTERVENTION

Catheter-Induced Stent Occlusion

Uncommon Complication During Diagnostic Angiography

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A 76-year-old man with cardiac risk factors of hypertension and smoking was referred to our hospital for elective follow-up angiography, be-

cause he was due to undergo carotid artery stenting. Sirolimus-eluting stents had been implanted in the mid to proximal portion of the right coro-

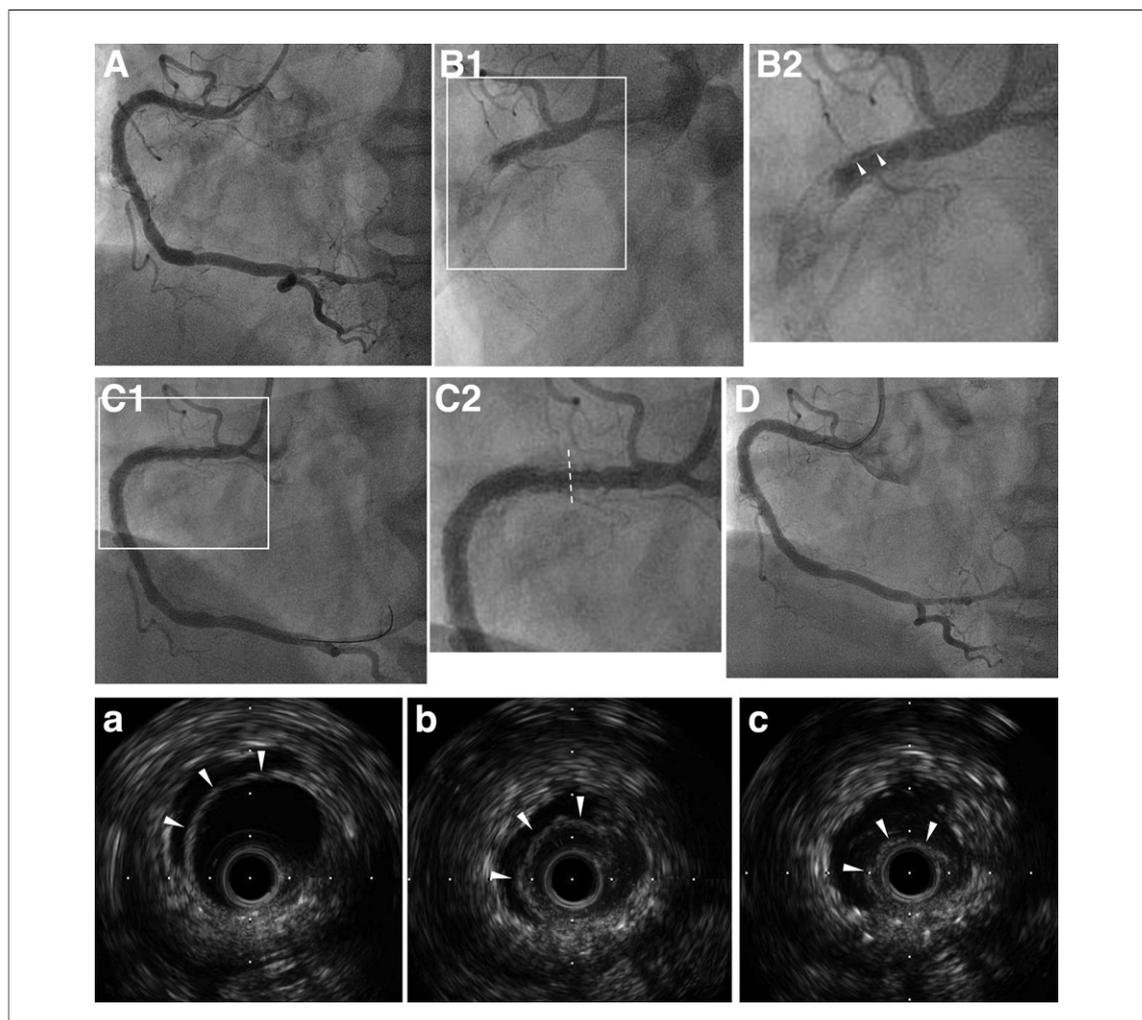


Figure 1. Angiography and IVUS

Baseline angiography (A); angiography showing acute stent occlusion (B1 and B2); angiography after guidewire placement (C1 and C2); final angiography (D); intravascular ultrasound (IVUS) revealing neointimal dissection flap (a to c, arrowheads) inside the stent with a transiently compromised true lumen by the dissection flap (c) (Online Video 1).

nary artery 3 years previously. Control angiography showed minimal neointimal proliferation inside the stents (Fig. 1A). Immediately after the first injection, the catheter pressure fell and the patient complained of chest pain. Further angiography demonstrated an occlusion of the stent with a radiolucent dissection flap inside the stent (Fig. 1B); consequently, we performed bail-out emergency angioplasty. After guidewire placement, Thrombolysis In Myocardial Infarction flow grade 3 was restored (Fig. 1C). To evaluate the cause of the occlusion, intravascular ultrasound was performed. Intravascular ultrasound with saline injection through the guiding catheter revealed a neointimal dissection flap inside the stent with a transiently compromised true lumen by the dissection flap (Fig. 1, Figs. 1a–1c and

Online Video 1). The dissection flap originated only from within the stent and started from the proximal edge of the stent where the catheter tip had been positioned during the first injection. Another sirolimus-eluting stent was implanted to seal the entire dissection plane, and final angiography showed a good result (Fig. 1D).

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 **APPENDIX**

For a supplementary video, please see the online version of this article.