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Optical Coherence Tomography Images of an Occluded Pulmonary Vein After Atrial Fibrillation Ablation

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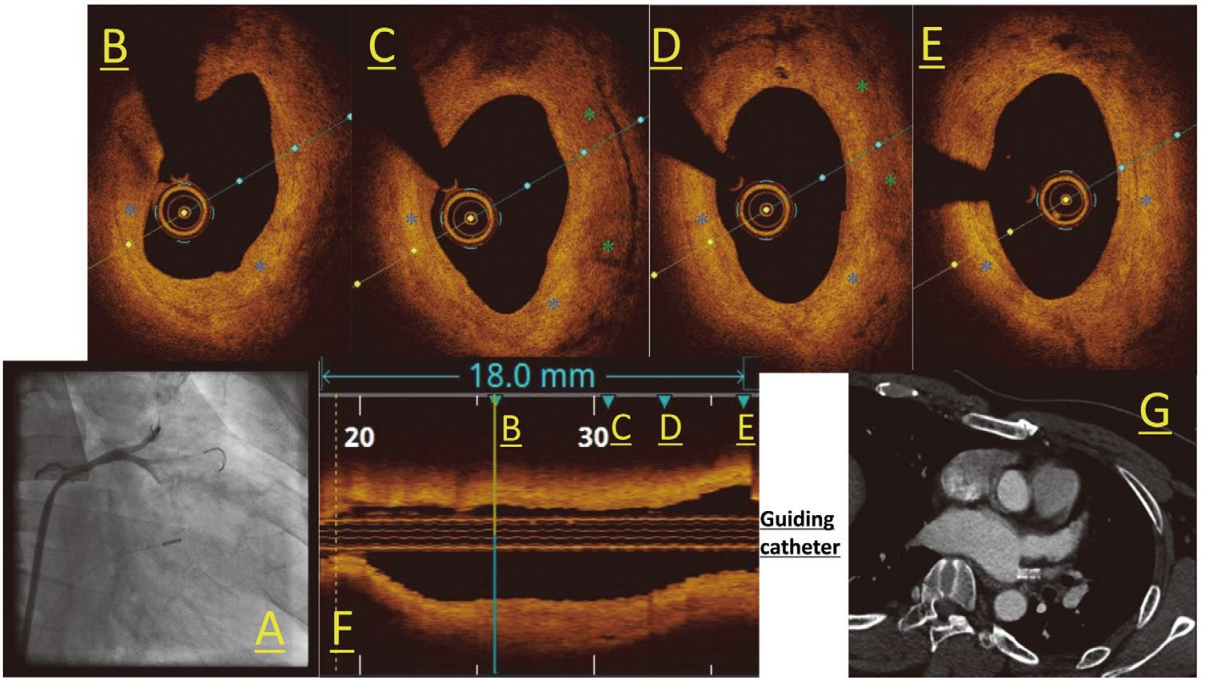

Figure. (**A**) Retrograde angiogram of left superior pulmonary vein (LSPV) after dilatation using a 6-mm balloon. (**B**–**F**) Cross-sectional optical coherence tomography images approximately 10.0 (**B**), 5.2 (**C**), 3.4 (**D**), and 0 mm (**E**) inside the LSPV ostium after dilatation with a 2-mm balloon, corresponding to the bookmarks (arrowheads) on the longitudinal image (**F**). Blue and green asterisks indicate homogeneous and layered neointimal growth patterns, respectively. (**G**) An enhanced computed tomography image showing the patency of the Express stent after 3 months.

A 44-year-old man who had undergone paroxysmal atrial fibrillation (AF) ablation 3 times at another hospital underwent endovascular treatment (EVT) for left superior pulmonary vein occlusion (LSPVO) due to hemoptysis following the administration of dabigatran (300 mg/day). At the initial EVT, dilatations using a 6-mm×20-mm balloon restored blood flow in the LSPV (**Figure A**). However, at the 3-month follow-up, enhanced computed tomography (CT) showed the recurrence of LSPVO, so secondary EVT was performed to prevent recur-

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rent hemoptysis. Serial optical coherence tomography (OCT) images after dilatation with a 2-mm balloon (**Figure B–E**) revealed a hyperplastic neointima, mimicking a combination of homogeneous and layered neointimal growth patterns after placement of a coronary drug-eluting stent.[1] An Express stent (6×18 mm) maintained 3-month patency (**Figure G**). The patient was in good health at the 7-month follow-up under dabigatran and clopidogrel (75 mg/day).

Using OCT provided novel intravascular insights into the pulmonary vein occlusion after AF ablation, indicating more aggressive restenosis compared with pulmonary vein stenosis[2] and highlighting the need for careful ablation to avoid inducing inflammation inside the pulmonary vein.

Disclosures

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