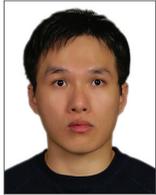
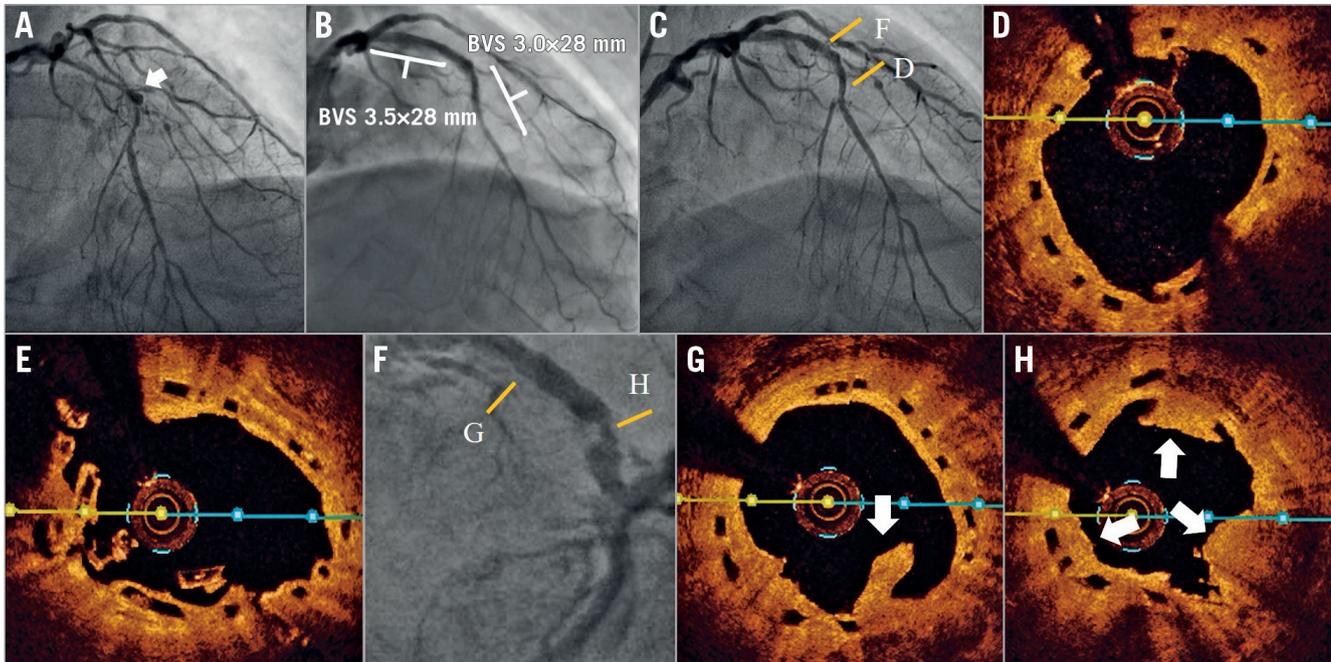


Drug-coated balloon treatment of late scaffold thrombosis and proliferated neointima and atherosclerotic plaque



Wei-Chieh Lee, MD; Hsiu-Yu Fang, MD; Chiung-Jen Wu*, MD

Division of Cardiology, Department of Internal Medicine, Kaohsiung Chang Gung Memorial Hospital, Chang Gung University College of Medicine, Kaohsiung, Taiwan



A 68-year-old man experienced unstable angina, and had type 2 diabetes mellitus and hyperlipidaemia. The left anterior descending artery (LAD) showed long stenotic lesions with calcification, and one aneurysm at the mid segment (**Panel A**). After intravascular ultrasound for pre-sizing, predilatation was performed with a high-pressure balloon. One 3.0×28 mm bioresorbable vascular scaffold (BVS; Abbott Vascular, Santa Clara, CA, USA) was deployed at the mid LAD at 16 atm, and another 3.5×28 mm BVS was deployed at the proximal LAD at 16 atm (**Panel B**). After adequate post-dilatation, optical coherence tomography (OCT) showed a good apposition. One year later, the patient experienced typical angina symptoms; follow-up angiography and OCT imaging showed no stenosis at the mid LAD (**Panel C**, **Panel D**). OCT imaging did however show poor absorption at the overlapping site (**Panel E**), one severe in-stent restenosis (ISR) with haziness at the proximal LAD (**Panel F**), and proliferated neointima with

atherosclerotic plaque rupture and some thrombi in the previous BVS of the proximal LAD (**Panel G**, **Panel H**). One 3.5×30 mm SeQuent Please® drug-coated balloon (DCB; B. Braun Melsungen AG, Melsungen, Germany) was inserted and inflated. Dual antiplatelet therapy was prolonged for two years and the patient did not present with any angina symptoms. A thallium perfusion scan showed a negative ischaemic finding. The BVS has been proved to be feasible for complex and calcified lesions. However, BVS absorption and endothelial growth may differ in different individuals. The use of a DCB for BVS thrombosis with proliferated neointima and atherosclerotic plaque has not been reported previously. We have reported here a case using DCB treatment for in-scaffold neointima proliferation.

Conflict of interest statement

The authors have no conflicts of interest to declare.

*Corresponding author: Division of Cardiology, Department of Internal Medicine, Kaohsiung Chang Gung Memorial Hospital, Niao Sung District, Kaohsiung City, Taiwan. E-mail: leeweichieh@yahoo.com.tw