Subclinical Calcified Nodules in Saphenous Vein Graft on High-Resolution Coronary Angioscopy

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Long-term patency of saphenous vein graft (SVG) remains challenging.¹ A 75-year-old man on hemodialysis had undergone coronary artery bypass grafting (CABG) 11 years earlier. At the current presentation he underwent percutaneous coronary intervention (PCI) for SVG failure to the diagonal branch (**Figure A**). Intravascular ultrasound (IVUS) and optical coherence tomography (OCT) showed convex calcifications at the severe proximal anastomotic stenosis (**Figure B,C**) and tandem stenotic sites (**Figure D,E**). In addition, coronary angioscopy (CAS) indicated punctate red thrombus on a protruding mass (**Figure F**). These findings were suggestive of calcified nodules (CN). A 3.5×48-mm stent was implanted (**Figure G**, yellow arrow) and he was discharged with an uneventful clinical course.

CN is defined pathologically as an accumulation of nodular calcification with disruption of fibrous cap.² Given that this patient was asymptomatic, it was likely that red thrombus was the result of subclinical thrombosis. Development of CN could be one of the causes of SVG failure,

particularly in hemodialysis patients. To the best of our knowledge, this is the first report on the evaluation of CN in SVG using IVUS, OCT and CAS.

Herein we present a case of subclinical CN in the SVG 11 years after CABG, evaluated using multiple intracoronary imaging modalities.

Disclosures

The authors declare no conflicts of interest.

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Figure. (A,G) Coronary angiography (CAG) (A) before and (G) after percutaneous coronary intervention. (B,C) Proximal anastomosis of the saphenous vein graft (SVG) on (B) intravascular ultrasound (IVUS) and (C) optical coherence tomography (OCT). (D–F) Intracoronary imaging: (D) IVUS, (E) OCT, (F) coronary angioscopy (CAS).