

Bailout TreatmentYuta Eguchi¹Shojiro Hirano¹, Takayuki Yabe¹, Ryo Okubo¹, Hideo Amano¹, Takanori Ikeda¹¹ Department of Cardiology, Toho University Omori Medical Center, Japan**[Target Lesion]**

A man in his 70s with a history of percutaneous coronary intervention (PCI) to the right coronary artery (RCA) and left anterior descending artery (LAD) for stable angina presented with chest pain. Stress myocardial perfusion scintigraphy demonstrated ischemia in the left circumflex artery (LCX) territory. Coronary angiography revealed a severely calcified lesion in the LCX #11, and PCI was performed.

[Strategy]

A 6/7Fr Glidesheath was inserted via the right radial artery, and a 7Fr Hyperion AL1.5 guiding catheter was used. The lesion was crossed with a floppy guidewire and a microcatheter. Intravascular ultrasound (IVUS) demonstrated a calcified nodule with favorable guidewire bias. Given the lesion angulation and favorable guidewire bias, the Orbital Atherectomy System (OAS) was selected for lesion preparation. The OAS crown was advanced across the lesion using Glide Assist mode, followed by five low-speed pullback passes. Repeat IVUS demonstrated residual calcified nodule, and additional high-speed pullback ablation passes were performed. Follow-up IVUS subsequently revealed an intramural coronary hematoma originating in the vessel distal to the atherectomy-treated segment. After predilation with a non-compliant balloon, a drug-eluting stent (DES) was implanted. However, the hematoma persisted, and newly developed pericardial effusion raised suspicion of coronary perforation. A covered stent was therefore implanted, followed by post-dilation with a non-compliant balloon. Final IVUS and coronary angiography demonstrated complete sealing of the hematoma and restoration of Thrombolysis in Myocardial Infarction (TIMI) grade 3 flow.

[Final Result]

This case demonstrates that intramural coronary hematoma can occur even after orbital atherectomy despite favorable guidewire bias, which is generally considered to minimize vessel injury. In heavily calcified and angulated lesions, careful IVUS assessment after atherectomy is essential for early detection of complications. Prompt bailout treatment with a covered stent may prevent further deterioration and contribute to favorable clinical outcomes.