

1105 **The Slit-Like Line That Led to the True Lumen: Successful PCI for a Totally Occluded Right Coronary Artery With Organized Thrombus**

Jackwang Lee¹

1 Internal Medicine, Changwon Fatima Hospital, Korea

A 66-year-old man presented to the emergency department with persistent chest pain that had begun 5 days earlier.

Electrocardiography demonstrated Q waves in the inferior leads. Transthoracic echocardiography revealed regional wall motion abnormalities in the right coronary artery (RCA) territory with right ventricular infarction. Cardiac biomarkers were markedly elevated (CK-MB, 18 ng/mL [reference: 0–5 ng/mL]; troponin I, 15,424 pg/mL [reference: <53 pg/mL]), suggesting a recent myocardial infarction.

Coronary angiography demonstrated three-vessel coronary artery disease with total occlusion of the proximal RCA. Rentrop grade 1 collateral flow from the left coronary artery to the distal RCA was noted.

PCI of the RCA was performed via the right femoral artery using a 7-Fr Amplatz Left 1.0 guiding catheter with side holes.

Initial wiring with a Sion Blue guidewire failed because of the organized thrombotic occlusion despite support from a Caravel microcatheter. A Fielder FC guidewire successfully crossed the lesion and was subsequently exchanged for a Sion Blue guidewire using the Caravel microcatheter.

However, after predilation with a 2.5-mm balloon, extensive coronary dissections and an intramural hematoma developed throughout the RCA, resulting in loss of distal flow. Rewiring of the distal RCA with the Sion Blue guidewire was unsuccessful.

Two attempts at thrombus aspiration using a 7-Fr aspiration catheter failed to retrieve any visible thrombus.

Repeat fluoroscopy demonstrated worsening of the angiographic appearance. Intravascular ultrasound (IVUS) revealed that the Sion Blue guidewire had entered the false lumen throughout the RCA.

Careful identification of the true lumen became essential. Fortunately, a thin, slit-like contrast-filled line at the proximal RCA was recognized on fluoroscopy and was considered to represent the compressed true lumen, providing a critical landmark for successful rewiring.

Because the Amplatz guiding catheter was not coaxially aligned with the presumed true lumen entry, it was exchanged for a 7-Fr Judkins Right 4.0 guiding catheter to improve alignment. Despite this adjustment, the guidewire still failed to enter the true lumen. Finally, with the support of a SuperCross 90° microcatheter, a Sion Black guidewire was successfully advanced into the true lumen.

IVUS confirmed true lumen wire position.

Following repeat predilation with a 2.5 × 15 mm balloon, TIMI grade 3 flow was restored.

The procedure was successfully completed with implantation of three drug-eluting stents. Final IVUS demonstrated excellent stent expansion and apposition without residual dissection.