

1010      **Urgent true-lumen recovery using tip-detection antegrade dissection re-entry for ongoing myocardial ischemia caused by progressive subintimal space expansion**

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[Target Lesion]

Diffuse and severely stenotic lesion extending from the proximal to mid LAD.

[Clinical Information]

A woman in her 80s presented with effort angina and was referred for elective PCI.

[Strategy]

PCI was performed via the right radial approach using a 6-Fr EBU 3.5 guiding catheter. Initial wiring with a Runthrough NS supported by a ZIZAI microcatheter was unsuccessful because of severe vessel tortuosity and tight stenosis in the mid-LAD. Multiple guidewires, including XTR, SUOH03, SION, and SION Black, were sequentially attempted. Despite parallel-wire techniques using a SASUKE double-lumen catheter, the guidewire repeatedly entered the subintimal space. Progressive enlargement of the false lumen resulted in deterioration of antegrade coronary flow, accompanied by chest pain and ischemic electrocardiographic changes.

As a bailout strategy, tip detection antegrade dissection re-entry (TD-ADR) was performed after upgrading to a 7-Fr SPB 3.75 guiding system. A Conquest Pro 12 ST supported by a Finecross GT microcatheter successfully achieved distal true-lumen re-entry. After predilation with a 1.5-mm balloon, fenestration of the subintimal hematoma was performed using a 2.0-mm cutting balloon, resulting in restoration of antegrade flow. Subsequently, two drug-eluting stents (SYNERGY XD 2.25 × 38 mm and 3.5 × 28 mm) were implanted.

[Final Result]

Transient no-reflow occurred after stent implantation; however, distal nitroprusside administration through a guide extension catheter and temporary IABP support successfully restored coronary flow. Final angiography demonstrated TIMI 3 flow with satisfactory stent expansion and complete lesion coverage confirmed by IVUS. Peak creatine kinase was 560 U/L. The IABP was removed the following day, and the patient was discharged without complications on postoperative day 4.