1109 **A case report of percutaneous coronary intervention for right coronary artery #3 chronic total occlusion with distal bifurcation using antegrade dissection re-entry and reverse wire technique**

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An 81-year-old male had been diagnosed with chronic coronary syndrome 20 years earlier. Coronary angiography at that time revealed a chronic total occlusion (CTO) in the right coronary artery (RCA) #3. An initial attempt at percutaneous coronary intervention (PCI) failed, and the patient remained on medical therapy. However, he later developed exertional chest symptoms and was referred to our institution. Coronary CT showed no significant lesions other than RCA, and PCI was planned.

The intervention was performed via bilateral femoral access using an 8Fr SAL 1.0 and a 7Fr SPB 4.0 guiding catheter. Dual injection demonstrated an unclear proximal cap and a distal cap just before the #4 bifurcation, with a CTO length of over 20 mm. Collateral channels from the left circumflex artery included a corkscrew-type vessel running in the atrioventricular groove and a septal channel, though neither was considered promising.

Although a retrograde approach was initially attempted, the septal channel could not be crossed, prompting a switch to an antegrade approach.

Under anchor balloon support, a Corsair Pro microcatheter and XT-R/Ultimatebros3 wires were used, but advancement led into the subintimal space. Antegrade dissection re-entry (ADR) guided by intravascular ultrasound (IVUS) was planned.

Using the Conquest Pro 12 ST, ADR was attempted, but re-entry at the RCA #3 distal site was not possible due to calcification. A second attempt with the Conquest Pro 12 SST also failed, so re-entry was finally achieved at the #4PD. Reverse wire technique (RWT) with a Sion Black wire was used to protect the #4AV branch. A stent was deployed from #3 to #4AV, and the procedure was completed in a standard approach.