1157 **A case of successful revascularization for severely calcified three-vessel disease with two-vessel CTO**

Ryosuke Hara1, Rei Fukuhara1, Yukihito Sato1

[1]cardiology, Hyogo Prefectural Amagasaki General Medical Center, Japan

The patient is a woman in her 80s with a medical history of hypertension, dyslipidemia, diabetes mellitus, and chronic kidney disease. She presented with exertional chest pain. Although echocardiography revealed normal left ventricular wall motion, an exercise stress ECG showed ST depression in leads V4?6, suggesting exertional angina. Consequently, we performed CAG. CAG findings revealed 90% stenosis in Segment 3 ,CTO in Segment 4PD,90% stenosis in ostial LCx and CTO in Segment 7 with diffuse calcium. Collateral source to the distal Segment 4PD was unclear. The distal LAD was visualized via bridge collateral from the septal channel and collateral from the RV branch. Although the SYNTAX score was high(58points), considering the patient's age, frailty, and preferences, we chose PCI strategy. To promote the formation of interventional collaterals to the LAD-CTO via revascularization of Segment 4PD, we treated RCA first. One month later, CAG revealed clear visualization of the distal LAD-CTO via collaterals from Segment 4PD to Segment 10. The LMT?LAD and LCx lesion was classified as Medina (1,1,1), and IVUS revealed significant calcification on the LMT and ostial LCx, opposite side of the carina. Therefore, in the second session, we performed debulking for LMT-LCx using a rotablator. Additionally, to enable focused treatment of the LAD-CTO in the next session, we performed debulking for the proximal LAD calcified lesion and stenting for LMT body. In the third session, we used retrograde channel from Segment 4PD to Segment 10 to visualize the LAD-CTO exit, and succeeded in CTO crossing with antegrade wiring. As the CTO lesion had thick 270-degree calcification, we performed debulking with a rotablator again. This resulted in optimal stent expansion in CTO lesion and successful revascularization of all three vessels. This case involved complex three-vessel disease with two CTOs and extensive calcification. By carefully sequencing the treatment and ensuring thorough vessel preparation, favorable revascularization was achieved. We report this case for its clinical significance.