

1130 Treatment strategy for multi-vessel chronic total occlusion with very severe calcification

The patient was 62 years old woman who had history of hemodialysis post 25 years, then underwent renal transplantation in 2013. In 2019, she was pointed out ECG abnormality and myocardial scintigraphy revealed broad ischemia in RCA region.

Coronary angiogram showed very calcified 3-vessel disease; 90% stenosis in proximal RCA and total occlusion of mid RCA, 75% stenosis in proximal LAD, total occlusion in mid LAD, and 75% stenosis in proximal LCX. There were several collaterals; Conus-LAD, RV-LAD, OM-#4PD, LAD-SB-#4AV, LAD-SB-SB bridging). We recommended her bypass surgery, but she declined our proposal and chose PCI strategy. Therefore, we planned PCI to RCA as an initial procedure.

We inserted an 8Fr SAL1 guiding catheter (GC) from left femoral artery. The backup of the GW was OK but easily wedged during wire manipulation. Using Corsair+Sion→escalation to XT-R, antegrade wire cross seemed successful. At the time of collateral angiography from LCA to confirm the position of tip of XT-R, systemic blood pressure decreased to 60 mmHg. After confirmation of XT-R was in true lumen by angiography, we inserted IABP and catecholamine support. Two possible reasons for iatrogenic shock were considered; 1) trouble of collateral flow from Conus/RV branch to LAD by wedging RCA and 2) iatrogenic aortic regurgitation by guiding catheter position. After hemodynamics stabilization by supporting devices, we performed rotator for better lesion preparation (1.25mm burr→1.75mm burr). Then, with guiding extension support, we finally succeeded to implant 3.0x38/3.5x38mm EES, following 3.5mm NC balloon.

In conclusion, we experienced successful complex PCI for a case of multi-vessel CTO with severe calcification. Treatment strategy in an acute setting seemed to sometimes, especially in case of very complex anatomy and clinical background. Ongoing evaluation of planned treatment strategy is crucial in very high risk subset.