

C016

Heavily calcified LAD trifurcation lesion which evaluated the difference in guidewire bias by support characteristics of the guidewires in IVUS examination before rotational atherectomy

[Target Lesion] mid LAD [Strategy] A 87-year-old male with effort angina was admitted to our hospital for the PCI. ECG revealed V2 poor R progression, V5-6 ST-T depression. Cardiac function was mildly reduced (LVEF 48%), diffuse mild hypokinesia. Renal function was almost normal (eGFR 60 ml/min/1.73 m²). He was never a smoker and other coronary risk factors were HTN and HL. CAG revealed mid LAD 90% stenosis trifurcation lesion which was balloon undilatable with severe calcification during prior PCI. The distal LAD and distal D2 were stented in other hospital two months ago, which diagnosed NSTEMI. His chest pain was left after prior PCI. So we planned to perform PCI for residual stenosis in the LAD with severe calcified lesion to improve the patient's symptoms. Rt. TBA, Glidesheath Slender 7Fr, 16cm was introduced. A 7 Fr SPB3.5 Hyperion was engaged into the LCA. There was heavily calcified lesion in the mid LAD trifurcation lesion. We checked position of the IVUS transducer within the lumen to understand the guidewire bias for effective debulking with Rotablator and its safety. We initially attempted IVUS (Terumo View IT) examination with Floppy Guide wire (ASAHI SION blue). The guidewire bias was on the epicardial side in IVUS examination using SION blue. We changed guidewire to more supportive guidewire (ASAHI Grand Slam) and performed IVUS evaluation again. Guidewire bias to the epicardial side became stronger. So we selected RotaWire Floppy and performed Rotablation with RotaLink Plus 1.25mm (200000rpm, max 3000rpm down) and RotaLink Plus 1.5mm (200000rpm, max 5000rpm down). IVUS after rotational atherectomy, which demonstrated smooth surface and round-shape calcium with reverberation behind calcium. When we attempted IVUS at septal branch, IVUS catheter stuck at septal ostium. We expanded LAD main vessel by using 2.25mm balloon (Powered Lacrosse 2 2.25 mm, 15 mm) to remove IVUS catheter. We performed balloon dilatation by using Scoreflex 2.0mm, 15mm at the septal branch. Additional kissing balloon dilatation was performed by using Powered Lacrosse 2 2.25mm, 15mm at the LAD and Scoreflex 2.0mm, 15mm at the septal branch. Next we performed balloon dilatation by using Powered Lacrosse 2 2.25mm, 15mm at the diagonal branch and kissing balloon dilatation. The diagonal branch ostium stenosis was left, so we chose culotte stenting at LAD and Diagonal branch. We delivered Resolute Integrity 2.5mm, 18mm at Diagonal branch. Guidewires were recrossed through the stent strut at LAD and septal branch and balloon dilatation by using Sapphire II PRO 1.5mm, 10mm. Kissing balloon dilatation was performed by using a Euphora 2.75mm, 15mm at the LAD and a Euphora 2.5mm, 15mm at the diagonal branch. We delivered Resolute Integrity 3.5mm, 34mm at proximal-mid LAD. Final kissing balloon inflation was performed at LAD and diagonal branch. IVUS examination was performed LAD and D2. The LAD stent proximal edge was malapposed. Additional dilatation was performed by using NC Euphora 3.5mm, 8mm. [Final Result] Final angiogram showed successful revascularization at LAD heavily calcified trifurcation lesion by using rotational atherectomy.