

1032 A tough case of double CTO failed IVUS guided rewiring about LAD long false lumen wiring. Finally LAD CTO treated with retrograde approach using epicardial channel.

A 70 year-old male visited emergency department. He complained of dyspnea on exertion for a month and chest pain for 3 day. He had no specific cardiovascular risk factors except smoking(25Pack-years). Electrocardiogram showed T wave inversion at precordial leads. Transthoracic echocardiogram(TTE) showed moderate decreased left ventricular(LV) systolic function(LV ejection fraction 32%) and regional wall motion abnormality at anterior and inferior territory. Chest X-ray showed cardiomegaly and both pleural effusion.

Coronary angiogram showed two chronic total occlusion(CTO) lesion at proximal left anterior descending artery (pLAD) and proximal right coronary artery (pRCA). We decided to try antegrade approach for LAD CTO lesion first based on TTE finding showed wall thinning at inferior territory than anterior territory. Two 7 Fr sheath were inserted at both femoral arteries. The left coronary artery was engaged with a 7Fr XB 3.5 and the right coronary artery was engaged with a 7Fr JR 4. LAD lesion was escalated with SionBlue with Caravel microcatheter. However, SionBlue could not pass the lesion, so we changed the guidewire to XT-R and Gaia 3rd guidewire. Gaia 3rd guidewire was successfully passed the CTO lesion. After wiring, we checked IVUS and found that wire went through long false lumen. We tried to reach true lumen with crusade microcatheter and Ultimate 3g guidewire, however, wire could not enter the true lumen. We tried IVUS-guided wiring to find true lumen but it was failed unfortunately.

By changing the strategy, we decided to try RCA CTO first. We did antegrade approach with XT-R guidewire and Caravel micrcatheter. Wiring was relatively easy succeeded and two stents(Biomatrix 3.5*36mm, 4.0*28mm) were inserted at proximal to distal RCA lesion. We checked collateral from RCA to LAD by epicardial channel that was derived from distal PL branch. We succeeded LAD CTO lesion passing through true lumen by retrograde approach using this epicardial channel. Suoh03 guidewire was inserted at LAD true lumen. IVUS showed that Suoh03 guidewire was inserted at true lumen. Gaia 2nd guidewire was rendezvoused with antegrade guidewire(SioneBlue) by using reverse CART. In the process, Carevel was too short to reach LAD guiding catheter, so we used Guidezilla to shorten the gap between catheter and caravel. Caravel was successfully passed through Guidezilla. We exchanged Gaia 2nd guidewire to RG3 guidewire. IVUS showed that RG3 guidewire was inserted at true lumen of LAD. Two stents (Desyne 3.0*38mm, 2.5*32mm) were inserted at proximal to distal LAD lesion. Final coronary angiography showed TIMI 3 blood flow and full expansion of LAD and RCA.