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Successful revascularization of two tandem LCX-CTO utilizing retrograde approach via LAD with single guiding catheter

A 59 year-old-male was referred for chest pain on effort. He had previously undergone PCI to his LAD because of AMI 6 years ago. He had multiple coronary risk factors including diabetes mellitus, hypertension, dyslipidemia and smoking. Stressed myocardial SPECT showed ischemia in his antero-septal and posterior to inferior. CAG revealed tandem two LCX CTO from proximal to distal, and very good collaterals from LAD apical. RCA was hypoplastic. We used a 8Fr Hyperion SPB3.5SH guiding catheter. At first we checked IVUS from OM branch because CTO was no stump lesion. We could advance the ostium of CTO by Conquest Pro9-12 wire with Crusade K. Next we exchange ConQuest Pro to Gaia2nd and could pass the 1st CTO lesion using three-dimensional wiring. But after that the Gaia2nd went to subintima in the 2nd CTO lesion. So we started retrograde approach via LAD with single guiding catheter. We could reach CTO distal using Suoh03 with Caravel. Next we used a UB3 to Gaia1st from retrograde. And we checked IVUS from antegrade. So IVUS showed the antegrade wire was in the subintimal space from 2nd CTO. So we used Gaia1st from retrograde with antegrade IVUS guided. We could introduce the retrograde Gaia1st to antegrade true lumen. Caravel couldn't pass the lesion but Corsair Pro could pass the lesion. However we suffered to achieve the wire externalization because Corsair Pro couldn't advance enough. We couldn't use GuideLiner or EnSnare with Corsair Pro simultaneously in the single guiding. So we tried to introduce the antegrade wire to retrograde lumen made by Corsair Pro (like a kissing wire technique). Finally we could pass the lesion from antegrade. IVUS showed the wire was all intraplaque route. After the ballooning, we deployed Ultimaster 3.0 × 38mm, 3.5 × 15mm from distal LCX. Final angiography showed a good LCX flow. In this case retrograde approach via LAD was useful. But the retrograde approach with single guiding catheter was sometimes difficult because of the limitation of devices and difficulty of wire externalization. Double guiding system was one of the solutions. In this case using Corsair Pro from retrograde and kissing wire technique from antegrade were effective to pass the CTO lesion. Now we experienced very tough case of LCX-CTO. We succeeded to recanalize using retrograde approach via LAD with single guiding catheter. Using bi-directional approach, we can choose various strategies in each situation.