

1042 Step by step procedure to perform LCx non-stump CTO via retrograde epicardial channel from the #4AV of RCA CTO distal

[Target Lesion] LCx#13non-stump CTO and RCA#1(ISO)-3 CTO

[Strategy] There was not promising collateral channel both LCx and RCA. We decided to perform PCI for LCx first. Because, LCx CTO was suspected as in-stent occlusion (ISO)+ prolonged occlusion towards proximal LCx and RCA CTO was significant long lesion from#1 to #3.

1st session-1; Target#13 non-stump CTO: HyperionSPB3.75 8FrSH → Runthrough Ultra Floppy(UF) wire to #14→IVUS guided wiring → failed to enter #13 CTO entry because of calcification even with GaiaNEXT2 → tried to enter #13 CTO using balloon screen technique and micro catheter compression technique using balloon to make guide wire work with effective torque→succeed to progress GaiaNEXT2 and GaiaNEXT3 towards #13 CTO direction→failed to enter toward true lumen and gave up. However I moved to perform PCI for RCA

1st session-2; Target #1(ISO)-3 CTO: HyperionAL1 8FrSH→Caravel MC + RunthroughUF→succeed to reach #2 true lumen → ballooning with 2.0*15mmballoon→MiracleNeo3 → XT-A → GaiaNEXT1 → proceed to #3(subintimal space confirmed by IVUS) → IVUS-guided wiring with CaravelMC + GaiaNEXT3 → failed to get true lumen. And I moved to try retrograde approach. HyperionSPB3.75 7Fr(TRI) + CaravelMC+SUOH03 → succeeded to reach #4PD distal via septal channel→failed to enter distal RCA → Finished with Antegrade TIMI3flow(True-false-true)

2nd.session; Target #1-3 diffuse long CTO retry: Hyperion AL1 8FrSH + CaravelMC + Sion Blue→confirmed with IVUS revealed wire located subintimal at #3 → IVUS guided wiring with GaiaNEXT2 → Coquest-pro12 → passed through distal true lumen → put stent (Xience2.5*48+3.0*48+3.5*48) → Finished with TIMI3.(Final angiography visualized collateral flow to LCx#13)

3rd.session; Target #13CTO(non-stump)retry: 6month after RCA PCI, We started with retrograde first strategy. (Retrograde)HyperionJR4.0SH 7FrSH(TRI) + Caravel MC + Sion blue → collateral channel was extremely tortuous→CaravelMC + SUOH03→succeeded to pass through to LCx#13distal!→UltimateBros3(UB3) reached to just distal to CTO proximal cap. So, we move to antegrade approach. HyperionSPB3.5 8Fr + RunthroughUF to #14 → IVUS showed retrograde wire located at subintimal → tried to antegrade puncture toward retrograde wire with Sasuke and GaiaNEXT2→Conquest Pro12→ failed to puncture toward #13 direction. We tried direct wire cross to proximal LCx with IVUS guidance. → succeeded to penetrate proximal cap with UB3 → Culottes stenting with Xience2.5*48+3.0*38 → Finished with TIMI3 flow and no channel damage.

[Final Result]Complete revascularization with PCI was done well. During this time course, we checked with cardiac scintigraphy to make sure the effect of CTO procedure. Cardiac scintigraphy showed significant improvement of myocardial perfusion step by step. Ischemic area calculated by scintigraphy decreased from 24% ,13% to 9%.