

1070 A case of successful antegrade approach for LAD CTO by using Parallel Wire Technique.

A case was 70's male with Dyslipidemia and Hyperuricemia. Cardiac Computed Tomography (CCT) for examination of chest pain showed severe calcification in proximal LAD. After the CCT, coronary angiography (CAG) showed proximal LAD CTO with severe calcification, so we decided to try LAD CTO PCI. eGFR was 62 mL/min/1.73 and Trans Thoracic Echocardiography showed akinesia of anterior wall motion with mild thinning. Ejection Fraction was estimated 40-45%.

CTO had blunt type entry after bifurcation of 1st diagonal branch and there were severe calcifications in CTO lesion on CAG. Vessel course was not so tortuous and CTO distal end was contrasted clearly by separated cornus branch. Septal channel from RCA#4PD was connected to LAD distal, but origin of the septal channel was very tortuous. CTO length was estimated about 15mm by CCT. Cross-sectional image of CCT was very useful for this case, because we recognized that there were eccentric calcification in myocardial site continuing longitudinally and there were non-calcified plaque in pericardial site.

CTO length was not so long and CTO distal end was clearly contrasted from separated cornus branch. Eccentric calcification was one of the landmarks for antegrade wiring. So, we decided to try antegrade approach at first.

8 French sheath inserted into right femoral artery for antegrade system and 7 French sheath inserted into left radial artery for contralateral injection and retrograde system. First of all, we inserted Caravel into separated cornus branch for contralateral tip injection. Fortunately, tip injection from separated cornus branch showed CTO distal end clearly. From the IVUS, there was severe calcification in the center of vascular. We selected Conquest Pro 12 as first wire for penetration the severe calcification. Conquest Pro 12 penetrated center of the CTO entry by using real time IVUS, but Conquest Pro 12 could not follow the bend of LAD and wire tip went to extravascular. At this point, we switched to Parallel wire technique using Gaia Next 2. Gaia Next 2 could follow the bend of LAD by using deflection but went to the subintimal space. Next, we tried Parallel wire technique using 2nd Gaia Next 2 considering distribution of the calcification and distal true lumen from tip injection. Fortunately, 2nd Gaia Next 2 reached distal true lumen. Finally, we succeed revascularization after Drug Eluting Stent implantation.