Angina Pectoris with Heart Failure Remaining LAD and RCA CTO in Spite of Post CABG

(Case) 75 years old male. He had a history of post CABG causing myocardial infarction in other hospital and admitted to our hospital due to AHF involving IHD with arrhythmia. After his cardiac function was got to stabilized, we performed CAG. (CAG and Bypass graft angiography) CAG revealed CTO in proximal RCA, mid LAD and mid LCX. Severe calcification detected in all native coronary resulting in severe negative remodeling. LITA to diagonal anastomosed and SVG to LCX PL anastomosed and those grafts was patent. However, SVG to RCA occluded. Distal RCA detected by collaterals from septal branch which was bifurcated before LAD CTO and from LCX PL. Distal LAD was detected by ipsilateral collateral from diagonal branch. (PCI) We started PCI for RCA–CTO. Even though, we succeeded in performing reverse CART and externalization, finally failed in success. Due to caravel ruptured in severe calcified CTO body. At later, we performed PCI for LAD–CTO. We could not do the IVUS guided wiring due to severe calcification at all. So, we started single wiring for CTO under Corsair with bilateral injection through LITA. GW proceeded into pseudo lumen unfortunately. However, after repeatedly insertion into pseudo lumen, non compliant balloon for using LAD calcified lesion was successfully expand. Then we could manipulate the GW by diagonal branch using crusade. However, this procedure was also failed in success and proceeded into pseudo lumen also. At this point, we advanced corsair into pseudo lumen and attempted the penetration strategy from pseudo lumen to true lumen using Conquest 8–20 with bilateral injection. This procedure, finally succeeded in getting true lumen. Then we decided to perform culotte stenting for the bifurcation lesion. Before the first stenting toward to diagonal branch, we performed POBA to pseudo lumen in LAD enough to reinsert GW into distal LAD true lumen through the near LAD pseudo lumen. As a result, reinsertion of GW was successfully done, we accomplished the culotte stenting. After that, we performed POBA throughout the LAD lesion using scoring balloon. Then we performed single stenting from LMT to LAD with KBT for LCX. Final CAG showed successful antegrade flow both of LAD and diagonal branch and well expanded stent without any complication.