

1055 Long Way through the Bumpy Road for the New Hope:

Successful PCI for Very Long CTO RCA with Critical and Heavily Calcified Donor Artery

Target lesion: RCA and LAD

Strategy:

LAD: (Donor vessel) Open LAD as an entry point to RCA intervention, with rotablator atherectomy, IVUS and scoring balloon

RCA: (CTO) Primary retrograde, with reverse CART technique, rotablator atherectomy, IVUS, and Scoring balloon

LCx: CTO in distal part: we did not do intervention

Final result: (in our DICOM file in dropbox, with link send by email)

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Abstract

Very proximal cap ambiguity of chronic total occlusion (CTO) of the right coronary artery (RCA) with critical stenosis and heavily calcified lesion of the donor artery is always challenging. We report of such complex case.

A 50 years old male with a history of having diabetes melitus and hypercholesterolemia for couples years. He came to our hospital complaining of dyspnea followed by chest pain during moderate activity. No history of myocardial infarction and prior revascularization. Coronary angiogram was done and revealed a proximal CTO of the RCA to distal just befor bifurcation of posterior descending artery and postero-lateral branch. Although some of the septal collateral was good, but the proximal LAD was significant, long and heavily calcified lesion. The Heart Team suggested for coronary artery bypass surgery, but the patient preferred for percutaneous coronary intervention (PCI)

PCI was done as usual manner. Dual arterial acces was performed and hybrid procedure (antegrade and retrograde approach) was chosen for our strategy. Due to ambiguity of the proximal cap, long CTO and distal target was bifurcation, therefore retrograde approach was our primary strategy. Because of very tight, diffuse and calcified lesion and for avoiding more ischemic burden during procedure, the proximal LAD was prepared carefully using rotablation and balloning especially at the proximal part of LAD. Retrograde approach and reverse CART technique were used succesfully and continued with externalization. Rotablation and finally put 3 long DES were implanted in RCA with acceptable result and 2 DES in LAD. No complication occured. On 3 months follow-up, he went well without any symptoms

Conclusion: Long CTO RCA and critical, heavily calcified lesion of the donor artery can be done successfully and safely by PCI using hybrid and retrograde approach as our primary strategy.