

Successful bi-directional PCI to LAD-CTO in an elderly patient with heart failure

A case was 88 year-old male. He was admitted to our hospital due to heart failure. His echocardiography showed severe hypokinesis at anterior wall, but not akinesis, indicating that his anterior wall had at least some viability. His CAG demonstrated total occlusion in the proximal LAD with trifurcation at the exit of the CTO. Moreover, good collaterals from PDA to LAD via septal branches were presented. Despite introducing optimal medical treatment, his status was not fully improved. Therefore, we decided to treat this LAD-CTO lesion by bi-directional PCI to maintain the trifurcation with LAD, first major septal branch and first diagonal branch. Initially, we did antegrade wiring using Gaia family, but failed to advance them. Therefore, we decided to shift the retrograde approach. A Sion wire was advanced into the distal CTO via PDA-SB collateral channel. A 1.25mm Tazuna balloon was advanced into the CTO segment antegradely, and inflated. Then we succeeded contemporary Reverse CART with a Gaia Third wire with direction control. After an externalization, other wires were advanced antegradely into the 1st SB and the 1st diagonal branch, respectively using a Crusade microcatheter. Finally three DES were deployed without losing both side branches. After the successful PCI, his symptom was disappeared. When to treat a CTO lesion with a bifurcation at an exit of CTO for improving cardiac function, a retrograde approach is sometimes needed to open a CTO vessel without losing a side branch. Even in elderly patients, bi-directional PCI for such cases should be considered.