

¹Minami Kyosai Hospital

Iiya Munehiro¹, Fujii Hiroyuki¹, Taomoto Yuta¹, Amemiya Miki¹, Sato Yoshikazu¹, Yamakami Yosuke¹, Nakamura Rena¹, Nakano Kuniaki¹, Shimada Hiroshi¹, Shimizu Masato¹, Yamawake Noriyoshi¹, Nishizaki Mitsuhiro¹

A 84 years old man with cardiovascular risk of hypertension was admitted to our hospital with diagnosis of congestive heart failure. Echocardiogram showed hypokinesis and thinning at inferior wall. After the improvement of his congestive state, we performed coronary angiography(CAG). The CAG revealed chronic total occlusion(CTO) of the mid Right Coronary Artery(RCA) with the collateral perfusion from right ventricular branch(RV branch). The culprit worsened his congestive heart failure, and viability still remain. Then we tried percutaneous coronary intervention(PCI) to this CTO lesion. The lesion had no stump, occlusion length exceeding 20mm, and with a collateral circulation from RV branch. Furthermore, PCI should be difficult because the lesion had an adjacent side branch of Acute margin branch(AM). We used 7-French guiding catheter to engage the RCA by femoral approach. A hydrophilic wire(Runthrough NS) was advanced to mid portion of RCA by a microcatheter(Corsair), but failed to cross the proximal cap of CTO lesion. This lesion was no stump type CTO, so the guidewire easily slip into the side branch(AM). Then we attempted the side-branch IVUS-guided technique to penetrate the proximal cap of CTO with a stiff wire(Gaia1,3). By using the image of IVUS from side branch, we penetrated to the true lumen and advanced to distal of RCA. After wiring, we deployed 2 drug-eluting stents. Final angiogram showed TIMI3 flow with preservation of all side branches.