1030 Stuck in a Crossroad

Background History:

59 year old female, with past medical history of hypothyrodism, was admitted to our hospital for NSTEMI and heart failure. GRACE score was 170. Echocardiogram showed LVEF 30% with anterior hypokinesia. Early coronary angioplasty was performed for the patient.

Coronary angiogram/angioplasty:

Coronary angiogram showed moderate-severe stenosis over ostial-proximal LAD. FFR and iwFR were performed across LAD lesion which yielded 0.78 and 0.86 respectively but with pressure drifting at pLAD due to o-pLAD lesion. IVUS of LAD confirmed significant long calcified lesion from o-mLAD, decided for intervention.

FFR wire was then parked at LCx for side branch protection. O-mLAD lesions were predilated with cutting balloon. Dissection of distal LM was noted after balloon dilatation. LM to mLAD was then provisionally stented and post-dilated. Angiogram showed good stent apposition with no edge dissection but ostial LCx was pinched despite TNG.

FFR across LCx was attempted to interrogate for the need for intervention of the LCx branch. The existing jailed FFR wire removed and attempted to recross the pinched LCx with the same wire. FFR wire was passed to pLCx but when the radioopaque part was halfway through the stent, it was stucked and was unable to be advanced or pulled back. After repeated attempt with various method to remove the stucked FFR wire, it was finally successful. However, it was noted that the LM-LAD stent was distorted and elongated, with a long length of stent extending to aorta.

If only a small length of stent was pulled out, flaring of the aortic portion of the stent might be sufficient. However, in our case, it was estimated that >10-15mm of stent was protruding and floating in the aorta. In view of that, simple flaring will not be safe or adequate, we have decided for removal of the entire stent.

Reopening of stent strut via original guidewire was attempted by failed. Pingpong Guiding with JL4 via R femoral approach was done, with distorted stent wired. Distorted stent wired across stent struts with multiple guidewire, intending to remove the stent with twisted wire technique, in order to retain true lumen wire, but failed. Attempted to remove LM stent by snaring technique, but midway during the snaring, the middle portion of the stent was very much weakened and lengthened, yet a considerable length of stent was inside the LM/LAD, continuation of the pull from the snare may result in breaking at the mid portion without removing the entire stent. Hence, we decided to push the snare back down, so that the middle weakened portion formed a loop, and a second snare was introduced via the right femoral artery with the stent loop encircled. Finally, the explanted stents completely removed. LM/LAD/LCx stenting was completed with Culotte technique

Conclusion:

Reusing of jailed wire carries risk, especially for non-PCI dedicated wire, in which checking of wire tip status is advised. Stepwise approach, pros and cons of various methods of removal of fully expanded and distorted stents were illustrated.