

C019

How should I treat a "left main trifurcation lesion"? A modified T stenting with Intravascular imaging

A 80-year-old man was admitted to our hospital with exertional chest pain. He had a history of right iliac artery occlusion. In the treadmill test, ST depression of inferior leads in Stage 2 was observed and positive findings were observed. Transthoracic echocardiography revealed normal LV systolic function (ejection fraction, 66%) without regional wall motion abnormality. Patient underwent coronary angiography with stable angina impression.

Coronary angiography was performed and disclosed a left main a significant stenosis, and distally to this lesion, the left main had presented a trifurcation to left anterior descending (LAD), left circumflex (CX), and intermediate branch (IM).

We decided to perform PCI on LMCA and trifurcation lesions. After three coronary soft guide wires (0.014 inch Runthrough; Terumo) had been passed into LAD, CX and IM. Intravascular ultrasound was performed and proximal CX diameter was similar to left main diameter, and IM was very close to ostial LAD.

First of all, the distal left main portion and LAD was predilated with 2.5*20 mm balloon inflated at 10 atm. Subsequently, distal left main portion and CX was dilated with 2.5 × 20 mm balloon inflated at 12 atm.

A 4.0*15mm drug eluting stent (DES) (Alpine, Abbott) was implanted into LMCA at 15 atm across the lesion and the ostium of CX. After stent insertion, the distal plaque was shifted to LAD and IM. Other wires could be used to successfully locate LAD and IM. To perform a modified T stent, another DES (3.25*23 mm) was implanted into the ostial LAD. After ostial LAD stenting, the plaque caused ostial IM stenosis and performed kissing balloon angioplasty of LAD and IM. The plaque again moved to the LM-LCX and performed the LM-LCX and LAD kissing balloon.

The IVUS was performed to confirm that the lumen diameter of the LAD, LCX, and LM was secured, and the procedure was terminated.