

C069

Treatment of a left main trifurcation lesion with directional coronary atherectomy

A 76 year-old man, who underwent coronary artery bypass grafting (CABG) for left main trunk (LMT) severe stenosis 3 years ago, was hospitalized to investigate the cause of ventricular tachycardia. Coronary CT angiography (CTA) revealed occlusion of saphenous vein graft to left circumflex artery (LCx). Coronary CT showed severe stenosis in distal LMT lesion and trifurcation lesion to left anterior descending artery (LAD), high lateral branch (HL) and LCx. PCI was performed for this left main trifurcation lesion. We cannulated the left coronary artery with 8-Fr JCL4.0 with side hole guiding catheter (Launcher, Medtronic, Santa Rosa, CA, USA). Intravascular ultrasound (IVUS) (OptiCross, Boston Scientific, Natick, MA, USA) study from LAD showed fibrous plaque was found mid LMT to proximal LAD lateral wall. With the use of a 300 cm guidewire (ABYSS DCA Support 300, NIPRO, Osaka, Japan), we performed IVUS-guided directional coronary atherectomy (DCA) (Atherocut L-size, NIPRO, Osaka, Japan). After 32 sessions of debulking, LMT plaque burden decreased 63.2% from 83.5%. Our initial strategy was LMT-LAD stenting with kissing balloon technique (KBT) for LCx. But IVUS study revealed there were large plaque in LCx ostial lesion. We decided to deploy stent LMT to LCx. After the pre-dilatation with KBI, Zotarolimus eluting stent 3.0*15mm (Resolute Integrity, Medtronic, Santa Rosa, CA, USA) was implanted to LCx. And we inserted the wire into LAD and HL by crossed over the stent, triple-KBT was performed (LAD: non-compliant balloon 3.75*15 mm, HL: semi-compliant balloon 2.0*15 mm, LCx: stent balloon 3.0*15 mm). IVUS showed stent strut covered ostial LAD plaque. We avoided 2stent strategy, and finally we used drug coated balloon 4.0*15mm (SeQuent Please, B. Braun AG, Melsungen, Germany) to LAD.