

2-year follow up OCT and angiography of PTFE-covered stent after LM-perforation

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Coronary perforation is rare but potentially life-threatening complication during percutaneous coronary intervention (PCI). Using a polytetrafluoroethylene (PTFE)-covered stent for coronary perforation is safety and effective. This case was an 80-year-old female who had history included hypertension, paroxysmal atrial fibrillation, cerebral infarction and bronchial asthma. She had been suffering from chest pain on effort, so PCI for the left main (LM) to the left anterior descending artery (LAD) was scheduled. In this case, unfortunately we experienced a coronary perforation at the distal left main (LM) after deployment of a new generation drug eluting stent (DES). At first we tried to perform conventional therapy with reversal of heparin and prolonged inflation with a perfusion balloon catheter in order to avoid occlusion of the left circumflex artery (LCX). However these options were not effective. Finally we implanted a PTFE-covered stent. We could bail out this critical situation without surgery and also could follow up using optical coherence tomography (OCT) and angiography 2 years later. To the best of our knowledge, there is no study or case report which follow up the covered stents using optical coherence tomography (OCT) beyond 1 year. We can evaluate the PTFE-covered stents at 2-year follow-up using OCT. The OCT shows incomplete endothelialization in the covered stent and some cavities outside the stent which are connected with intravascular lumen via the entry point. We need to continue administration of DAPT and follow up using the imaging modality in the future.