

## A case of type III coronary perforation at unexpected site

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A 82 years old woman receiving hemodialysis with nephrosclerosis was admitted to our hospital with silent ST depression on ECG. She was treated with warfarin for atrial fibrillation. CAG revealed significant stenosis in mid-LCX and mid-LAD. Although angiogram of LAD showed small in diameter and tortuous configuration with mild calcification, PCI attempt was carried out. Subsequent IVUS image demonstrated eccentric calcified plaque in the target lesions, which were speculated as high risk of coronary perforation. So we selected undersized non-compliant balloon for pre-dilatation and inflated step-by-step with low to high pressure until full expansion of balloon was achieved. Fortunately, the lesion dilated without perforation. For preparing stent deployment, dilatation of proximal intermediate lesion with concentric soft plaque was followed. After high pressure balloon dilatation, angiogram demonstrated massive extravasation of contrast medium into the pericardium with hemodynamic instability requiring pericardiocentesis for cardiac tamponade. In spite of repeat prolonged balloon dilatation with autoperfusion balloon under administration of Pratinamine sulfate, extravasation persisted. Finally, the perforation was successfully sealed by a polytetrafluoroethylene-covered stent graft. Before deployment of covered stent, coronary rupture was confirmed by IVUS at the intermediate lesion. Coronary perforation is a potentially serious rare complication of PCI, and several predictors were reported. Although patient characteristics and lesion morphology might be included into high risk category, the situation of perforation was unpredictable.