

Spontaneous coronary artery dissection in a patient with end stage renal disease; percutaneous coronary intervention strategy and intravascular ultrasound findings

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**Case presentation;** We report a case of spontaneous coronary artery dissection occurring in a 78-year-old man with end stage renal disease (ESRD) on maintenance hemodialysis. Old anterior myocardial infarction was diagnosed by ECG and echocardiography. Multi-detector CT and coronary angiography revealed a long linear dissection in the proximal left descending coronary artery. **Strategy;** PCI (percutaneous coronary intervention) was performed. The lesion was crossed with a 0.014 " guide wire (NEOS Soft), and an additional guide wire (FORTE) was inserted into the diagonal branch. Intravascular ultrasound (IVUS) confirmed that the dissection site had a double barrel-like appearance with compressed the true lumen and expanded the false one, and that the first wire was inserted in the true lumen. Vessel recanalization of the true lumen was achieved by positioning a bare metal stent (DRIVER, 3.0 x 30 mm) with 12 atmospheres. Post-dilatation with a non-compliant balloon (Quantum Maveric, 3.5 x 8 mm) was undertaken at a maximum of 14 atmospheres. **Results;** At the end of the procedure, repeat IVUS and final coronary angiography showed no residual stenosis of the true lumen and complete closure of the false lumen. There were no procedural complications, and the patient was discharged on day 3. Follow-up coronary angiographies after 6 and 18 months showed no re-stenosis in the stented LAD and complete sealing of the false lumen. **Conclusion;** PCI with bare metal stent guided by IVUS can treat spontaneous coronary artery dissection in patients with ESRD safely and effectively.