

1040 A Case of bailout from the left descending artery occlusion by the destruction of the stent due to the jumping crown of the Orbital Atherectomy System

[Target Lesion] left descending artery (LAD)

A 79-year-old woman who was a dialysis patient was taken to our hospital with lasting chest oppression for 8 hours. Upon admission, an electrocardiogram (ECG) showed ST segment depression in leads V3-6. Transthoracic echocardiogram (TTE) showed severely reduced wall motion. High-sensitive cardiac troponin I increased up to 0.17 µg/mL. He was diagnosed acute coronary syndrome and transferred to catheterization laboratory immediately. Emergent coronary angiography (CAG) revealed 99% stenosis in mid LAD. At that time, culprit was treated with Xience Sierra 2.75x28mm. But severe calcified lesion remained proximal LAD. Four months later, follow CAG was done and iFR was 0.73 in LAD and we determined to perform PCI to LAD. IVUS image showed concentric calcification and lumen diameter was 1.5mm, we selected orbital atherectomy system (OAS). After several ablations, we put the crown distal and tried to debulk the calcification near stent. When we turned on OAS, the crown jumped into distal. After that LAD flow got worse and ST segment in leads V2-4 elevated. We thought stent proximal edge turned inward by the crown and the flow became restricted. We attempted to recross another wire into the broken stent, but that was failed. So, we passed the wire through outside of the broken part of the stent and crossed it into the inside of the unbroken part of it. Then we dilated 3mm non-compliant balloon to press the broken stent against the vessel wall. After that we deployed Ultimaster Tansei 3.0x24mm to cover broken part of the stent. Coronary artery flow got TIMI3 and ST segment resolved. Four months later, she was taken to the hospital with worsening chest compression and dyspnea. After the heart failure treatment, CAG was performed. Angiography showed 90 percent stenosis in previous Ultimaster Tansei. We performed balloon dilatation followed by drug coated balloon inflation. OAS was very useful for calcified lesion. But there are some complications such as entrapment, perforation and jumping. This is educational case to know about OAS complication.