

Patient 2:

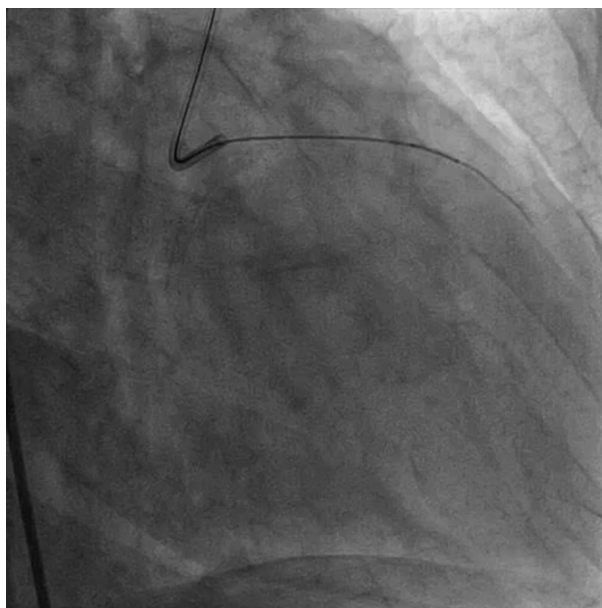
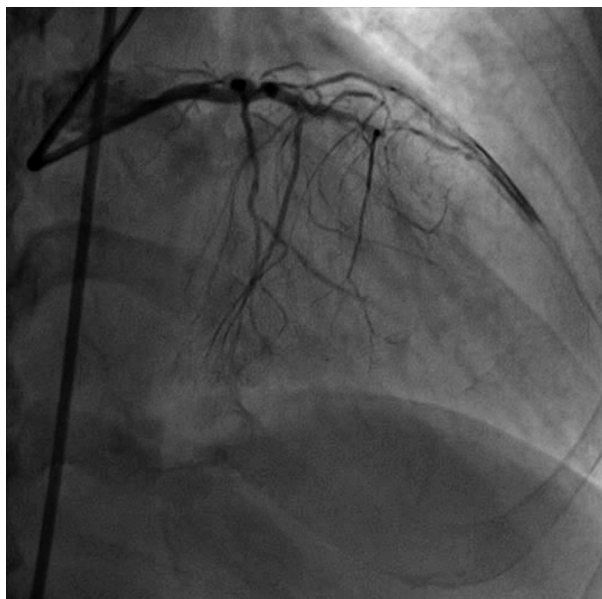
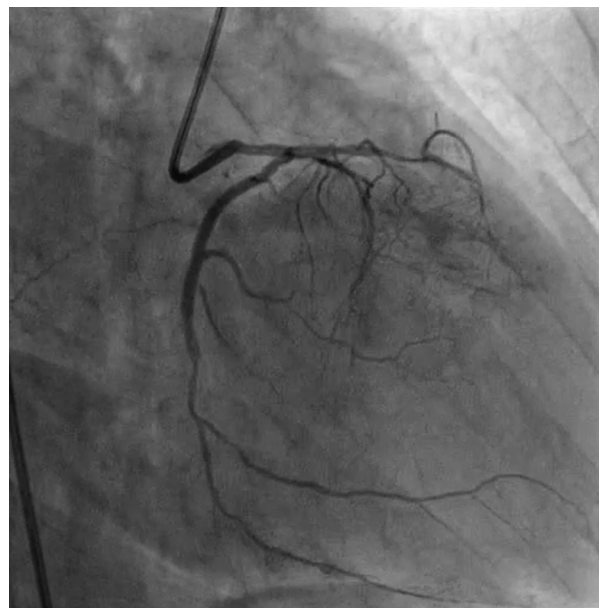
Firstly, we inserted guiding catheter BL 3.5 7F to LMCA. We perform PCI initially by attempting to penetrate CTO in LAD. We inserted guidewire Fielder XT 0.36 mm to penetrate the CTO but it was unsuccessful. We directly change the guidewire to Miracle 12 and seemingly penetrate the CTO successfully. Unfortunately, when contrast was injected, the guidewire actually perforated the diagonal branch. The initial management was prolonged balloon inflation around 5-10 minutes but after several attempts we still failed to seal the perforation. While performing prolonged balloon inflation, we were also optimize other area of myocardial wall by performing PCI in LCx. We put two bare metal stents (BMS) from proximal to distal LCx with good result. We checked for clinical signs of cardiac tamponade and performed echocardiography to exclude cardiac tamponade. After performing several times of unsuccessful prolonged balloon inflation, we then decided to put BMS within the perforation. Instead of deploying fully inflated stent, we decided to place the stent by giving low pressure stent inflation. The purpose of doing this manouvre was not only to make this stent act like a coil but also the occluded vessel can be reaccess later if we are planning for staged PCI. After a while, the perforation sealed and no residual streaming.

Case Summary:

The perforation was sealed by doing alternative approaches.

The first approach was giving negative pressure (2-3 atm for 3-5 minutes) through microcatheter within the perforation site which gave the coronary lumen a spasm effect and made the coronary vessel wall become intact.

The second alternative approach was to put stent with low pressure stent inflation. This approach will make the usual stent act like a coil to occlude the coronary artery but allow us to reaccess it later if we are planning for staged PCI.

**TCTAP C-032**

Unexpectedly Migration of Giant Thrombus in Left Anterior Descending Artery into Left Circumflex Artery During Primary Coronary Intervention with Aspiration Thrombectomy in Acute Myocardial Infarction

Ji Young Park, Jae Woong Choi

Eulji General Hospital, Korea (Republic of)

[Clinical Information]**Patient initials or identifier number:**

59/M, JCB

Unit number: 746706

Relevant clinical history and physical exam:

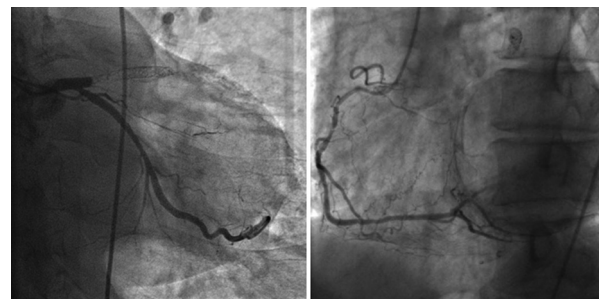
Fifty-nine years old male presented to our emergency room with severe chest pain of 3 hours' duration. He was an ex-smoker and accumulated a 10 pack years smoking history. Eight years ago, he had been taken percutaneous coronary intervention due to severe stenotic lesion of proximal left anterior descending artery (LAD) using cypher 3.5mm x 28 mm. The level of troponin T was elevated up to 0.724ng/mL and CK-MB was elevated up to 11.84. ng/mL. The ECG showed no ST segment elevation. Therefore the patient was diagnosed as non ST elevation myocardial infarction.

Relevant test results prior to catheterization:

Echocardiography showed severe regional wall motion abnormalities of LAD territory and decreased left systolic function (EF by AQ: 50%)

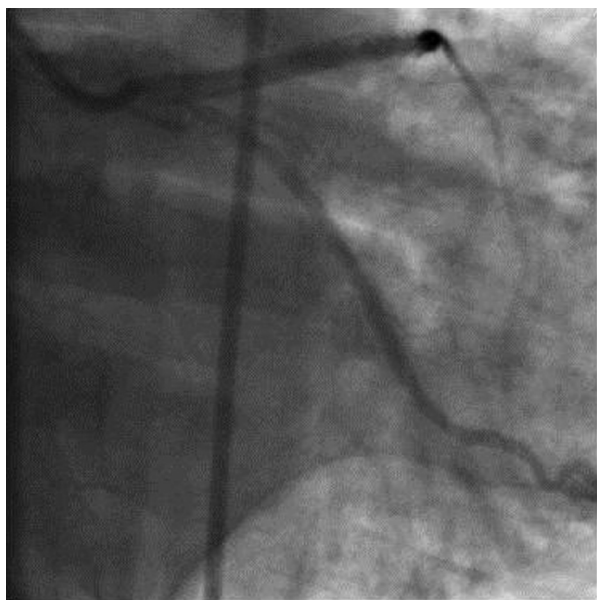
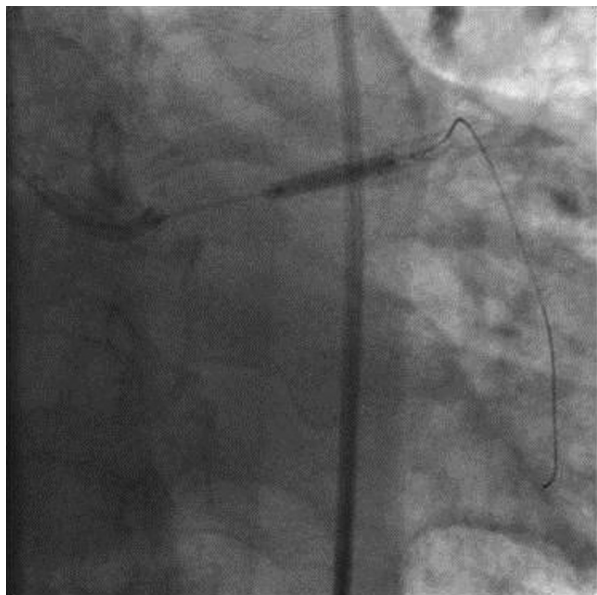
Relevant catheterization findings:

At baseline, coronary angiography (CAG) showed total occlusion of proximal LAD (in stent restenosis Type 4) and stenotic lesion of right coronary artery (RCA) with plaque rupture and collateral branch from posterior descending artery to LAD.

**[Interventional Management]****Procedural step::**

A 7Fr JLG4 guiding catheter was engaged through the right femoral artery. Initially, Fielder XT hydrophilic wire was used to penetrate the proximal cap of proximal LAD. After wiring, aspiration thrombectomy (AT) was performed using rebirth Pro 7Fr and predilatation was performed using Lacross 2x15mm. However, repeat angiography

showed visible thrombus in previous stent lesion of LAD and AT was performed repeatedly. However, after AT, a repeat angiography showed that unexpectedly giant thrombus of LAD migrated into left circumflex artery (LCX) and distal flow of LCX was decreased to TIMI 0 flow. After administration of GP IIb/IIIa inhibitor (Clotinib), Xience V 3X28mm was deployed in proximal LAD and AT and predilatation with lacross 2x15mm were performed in mid to distal LCX. However, repeat angiography showed visible thrombus in mid to distal LCX. Suddenly, The patinets' BP was decreased to 80mmHg, and hypoxia was shown, intra-aortic balloon pump was performed and Xience V 2.5X15mm was promptly deployed in mid LCX. After stenting. Final angiography showed successfully revascularization of LCX with TIMI 3 grade flow.



TCTAP C-033

Transradial Rotational Atherectomy Using Sheathless System

Hidetsugu Sakai

Kushiro City General Hospital, Japan

[Clinical Information]

Patient initials or identifier number:

13-03652-0

Relevant clinical history and physical exam:

A 67 years-old gentleman was suffered from abdominal aortic aneurysm and open surgery to resect it was planned. Surgeons ordered us to examine his cardiac function.

Relevant test results prior to catheterization:

Coronary computed tomography showed significant stenosis of left anterior descending artery (LAD), and scintigraphic study revealed fixed ischemia of LAD territory.

Relevant catheterization findings:

Coronary angiography showed ectasic lesions at distal segment of right coronary artery and middle segment of left circumflex artery. Moreover, we found a significant stenosis with severe calcification at proximal LAD.

[Interventional Management]

Procedural step:

Surgoens expected us to make the duration of antiplatelet therapy as short as possible because they planned open surgery. And trans-femoral procedures should be avoided because the patient had abdominal aortic aneurysm. We estimated that rotational atherectomy was necessary to treat the severely calcified disease. Therefore, we decided to perform trans-radial rotational atherectomy using sheathless system.

His left coronary artery was engaged with a 7.5Fr JL4.0ST Sheathless guiding catheter (Asahi Intec) and a Proneus soft guidewire (Zeon Medical) was advanced toward distal LAD. Since OptiCross intravascular ultrasonographic catheter (Boston Scientific) could not cross the lesion, we performed rotational atherectomy with 1.5mm and 2.0mm burrs of Rotalink Plus (Boston Scientific) after the guidewire was exchanged to Rotawire floppy (Boston Scientific). Intravascular ultrasonography after rotational atherectomy showed that the lesion was well ablated without any dissections. In order to make the duration of antiplatelet therapy as short as possible, we did not implant any stents.

Case Summary:

Outer diameter of a 7.5Fr Sheathless guiding catheter is 5.5Fr, and it enables us to perform rotational atherectomy with a 2.0mm burr. If you select a 8.5Fr Sheathless guiding catheter, a 2.15mm burr can be used. Moreover, rotablation of low speed is essential in order to avoid stent placement.

TCTAP C-034

The Stable Angina Performed Aspiration with Microcatheter for Distal Embolization

Masahiro Takahata, Teppei Sugaya

Hokkaido Social Insurance Hospital, Japan

[Clinical Information]

Patient initials or identifier number:

I.Y.

Relevant clinical history and physical exam:

The patient was female in her 70's. She presented to her local hospital with effort angina for 3 months. Her coronary risk factor was dyslipidemia.

Relevant test results prior to catheterization:

Her baseline ECG and echocardiography were normal. Coronary CT angiography showed a significant stenosis at proximal RCA. The lesion length was relatively short.

Relevant catheterization findings:

Left coronary angiography showed normal LAD and LCX. Right coronary angiogram revealed a significant stenosis at proximal RCA. Lesion length was relatively short with the same findings of CCTA, and we can see the finding of suggestive of plaque rupture at lesion proximal.

[Interventional Management]

Procedural step:

We performed PCI to proximal RCA. The approach site was right radial artery. FR4 6Fr for guiding catheter was used. Sion blue was inserted into RCA, and OCT was performed. OCT showed lipid rich plaque, thin-cap fibroatheroma and ruptured plaque. In this case, lesion length was 16mm, and distal reference diameter was 3.35 mm, and proximal lumen diameter was 3.94 mm. From the findings of OCT, we used 3.5x16mm Everolimus Eluting Stent for this lesion. At first I dilated to 10 atm to fit on distal edge, and slightly pulled back, dilated to 20 atm to fit on proximal edge.

After stenting, angiogram revealed slow flow, and ECG showed ST elevation of II, III, aVF lead and she had a chest pain. At first, we performed Nitroprussid injection with Lumine infusion catheter.

After injection of nitroprussid, global blood flow was improved, however the embolism in the peripheral branch was observed. To treat distal embolism, we usually use a conventional aspiration catheter. However, for embolism in the distal small branch such as this case, aspiration with a conventional aspiration catheter often fails due to a lack of deliverability of the catheter. So we tried to use microcatheter for aspiration. We successfully removed the embolic