TCTAP C-004
The Critical LCX Dissection During PCI for LAD to Treat ACS
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[Clinical Information]
Patient initials or identifier number: K.H
Relevant clinical history and physical exam:
82 years old woman was admitted with unstable angina. As chest pain was occurred in the emergency room and ST depression was recognized with an electrocardiogram, coronary artery angiography (CAG) was immediately performed. Her vital signs were stable.

Relevant test results prior to catheterization:
There was 99% stenosis at segment 7 and separated left coronary artery (there were no left main trunk) on coronary artery computed tomography angiography. The diffuse soft plaque was shown from the ostium of LAD to the distal of LAD.

Relevant catheterization findings

[Interventional Management]
Procedural step:
The approach side was right femoral artery and 7 French EBU3.5 guiding catheter was selected. As the guiding catheter could not be engaged to LAD because of separated entrance of LAD and LCx, Advance Lite (Abbott vascular) was crossed to LCx and another wire (RINATO; St Jude Medical) crossing to the LAD was tried. That challenge was failed, so the Advance Lite was taken away and the EBU guiding catheter engagement to LAD was retried. When test contrast shot from valsalva sinus was checked, critical dissection at LCx was shown and blood flow of LCx was disappeared. Guiding catheter was exchanged to 6 French JL 3.5 and the catheter was engaged to LCx. Advance Lite was crossed to the false lumen of LCx and wire crossing LAD was success using RINATO. Finally, X-treme (Asahi intec) was able to cross the true lumen of LCx and the proximal entry was detected at the proximal of LCx on intravascular ultrasonography (IVUS). Considering the plaque at the ostium of separated LAD, stent implantation for LCx to cover the entry may have risk of occurring stenosis at the ostium of LAD. So first stenting for LCx using Everolimus eluting stent (EES; Xience xpedition 3.5mm x 18mm, Abott vascular) was performed with kissing balloon technique. (KBT; the target were the ostium of LCx and LAD) Second stent implantation using EES (Xience xpedition 3.0mm x 18mm) was for LAD culprit lesion. However stent implantation was success to cover the proximal entry at LCx, the blood flow of LCx was still restricted. Finally, the flow was recovered by stent implantation (Xience xpedition 2.75mm x 38mm) for the distal of dissection. EES implantation (Xience xpedition 3.0mm x 15mm) for the ostium of LAD with KBT completed this complicated revascularization.

Case Summary:
This case is the PCI complication case. The critical dissection was occurred at LCx that was not culprit vessel of ACS. Cautious stenting strategy was required and successful bailing out was shown finally.

TCTAP C-005
A Case of Acute Anterior Myocardial Infarction with Left Ventricular Free Rupture Immediately After Reperfusion of the Infarction Related Artery, Report with Autopsy Findings
Hayato Hosoda
Chikamori Hospital, Japan

[Clinical Information]
Patient initials or identifier number: NW
Relevant clinical history and physical exam:
The case was 79 years old male who had a history of Non-Q wave myocardial infarction with Cypher stent implantation in left anterior descending artery (LAD) in 2008. He also received another Cypher stent implantation in left circumflex artery in 2009. He visited to his physician because of repeated chest pain for 3 days. His physician diagnosed him as acute myocardial infarction with his 12 leads electrocardiogram (ECG) and transfered to our hospital.

The blood pressure was 105/52 mmHg, and the heart rate was 65 beats/minutes. No cardiac murmur and no lung rale could be heard.

Relevant test results prior to catheterization:
The 12 leads electrocardiogram showed ST elevation in I aVL V3-6, and poor R wave nearly like QS pattern with T wave inversion in all precordial leads. The chest roentgenogram showed cardiomegaly and slight congestion. In the laboratory findings, all cardiac enzymes including cardiac troponin was elevated; the CPK was 1202 IU/l. The transthoracic echocardiography (TTE) showed extensive antero-septal asynergy.

Relevant catheterization findings:
The coronary angiography showed 99% stenosis with delay ject distal of previously implanted Cypher stent in LAD #6.

[Interventional Management]
Procedural step:
Guiding catheter: 6Fr Launcher IL4.5
Crossed the guide wire (Sion Blue).
Took the intravascular ultrasound (IVUS) (Revolution) image.
Implant a PROMUS Element stent (3.5*16mm) directly with 10 atm.
Post dilation was underwent using stent balloon with 12 atm.
Case Summary:
We crossed the lesion with Sion Blue wire and took IVUS image. The IVUS showed narrowing of stent luminal diameter with intimal hyperplasia. There also might be mural thrombus with suggestion of very late stent thrombosis. We directory implanted a PROMUS Element stent (3.5*16mm). Immediate after stent implantation, the patient fell into hemodynamical collapse and cardiopulmonary arrest. Although the prompt cardiopulmonary resuscitation was performed, spontaneous circulation could not be returned. The TTE showed massive pericardial effusion compatible with cardiac free wall rupture.
Late reperfusion is thought to be a risk of cardiac rupture. The Macroscopic findings of autopsy detected two ruptured point in apical anterior wall. We will report with macro and microscopic findings including coronary artery.

TCTAP C-006
Isolated Right Ventricular Myocardial Infarction Misdiagnosed as Anteroseptal Myocardial Infarction on ECG
Junji Iwaska
Kansai Medical University, Japan

[Clinical Information]
Patient initials or identifier number: TT
Relevant clinical history and physical exam:
Typical clinical symptoms (chest pain and cold sweat)
no significant sign of heart failure (edema, dyspnea and dullness)
Relevant test results prior to catheterization:
ECG findings: AF rhythm, ST elevation in V1-3 Laboratory findings: significant elevation of cardiac enzymes (troponin I, CK and CK-MB)
Relevant catheterization findings:
Total occlusion of RCA segment #1
no significant lesion found in LCA

[Interventional Management]
Procedural step:
Emergent CAG was performed as right radial approach with 5F JL4 and AL1 catheter.
CAG revealed a proximal occlusion of the right coronary artery and a patent dominant left coronary artery.
Ad-hoc PCI was performed after CAG with 6F system; 6F Launcher ECR3.5SH guiding catheter and ASAHI Sion guide wire.
After thrombectomy with 6F THROMBUSTER, PCI of RCA was performed.
Pre-dilation: NC TRECK 3.75x15mm
Stent: Integrity 4.0x26mm 10atm
Post-dilation: Integrity balloon 10atm x1, 13atm x1