Relevant catheterization findings:
dLM local 25% lesion,
plAD local 50% lesion(ISR, distal in-segment of Pre-DES), mLAD tubular 50-70% lesion
plCX tubular 50-70% lesion, dLCX local 25% lesion
dRCA tubular 25% lesion, PDA local 50% lesion, right dominant

[Interventional Management]

Procedural step:
LM-LAD and LM-LCX IVUS showed mLAD CSA 2.45 mm², ISR (PreDES in p-mLAD)CSA 3.27mm², dLM CSA 4.87mm².

Strategy: IVUS-guided LM-LAD PCI

Patient complained chest pain and angiogram showed LM occluded, clot noted, patient collapsed.

CPR undergoing, I did POBA firstly and then thrombectomy, at the same time tirofiban ic and iv sequentially.

Finally, patient’s heart rebeat and IABP putted in. I completed LM-LAD PCI.

Facilities including G.C., Medtronic 6F EBU3.5; G.W., ACS Whisper 0.014-190cm, ACS BMW 0.014-190cm

IVUS, Boston Scientific Atlantis SR Pro 3.6F-135cm

Balloon, B.S. Apex 2.5-15mm

KANEKA ThrombusterII

Stent,B/Braun Coroflex Please 2.5-25mm /3.0-16mm /3.5-19mm

Case Summary:
63 years old, male, angina in 6 months (CCSII->CCSIII) and suffered collapse at home and saved by his wife 6 days before admission. Medical history including Pre-DES to LAD and Cardiac Risk Factors including Ex-smoker, HL, HTN. Pre-procedure routine test: ECG: ST segment devised (anterior); Echo: No RWMA, EF 65%; Crc 74 umol/L, Ccr 63.6ml/min.

Andiogram: dLM local 25% lesion; pLAD local 50% lesion(ISR, distal in-segment of Pre-DES), mLAD tubular 50-70% lesion; pLCX tubular 50-70% lesion, dLCX local 25% lesion; dRCA tubular 25% lesion, PDA local 50% lesion, right dominant.

Procedure Program: LM-LAD and LM-LCX IVUS showed mLAD CSA 2.45 mm², ISR (PreDES in p-mLAD) CSA 3.27mm², dLM CSA 4.87mm².

Strategy: IVUS-guided LM-LAD PCI but patient complained chest pain and angiogram showed LM occluded, clot noted, patient collapsed. CPR undergoing, I did POBA firstly and then thrombectomy, at the same time tirofiban ic and iv sequentially.

Finally, patient’s heart rebeat and IABP putted in. I completed LM-LAD PCI.

Facilities including G.C., Medtronic 6F EBU3.5; G.W., ACS Whisper 0.014-190cm, ACS BMW 0.014-190cm

IVUS, Boston Scientific Atlantis SR Pro 3.6F-135cm

Balloon, B.S. Apex 2.5-15mm; KANEKA ThrombusterII

Stent,B/Braun Coroflex Please 2.5-25mm /3.0-16mm /3.5-19mm

TCTAP C-060

A Special Percutaneous Coronary Intervention of Left Main Coronary Artery: A Calcified Lesion Resemble Thrombus

Xiang Ma, Wei Zhu, Yi-Tong Ma

The First Affiliated Hospital of Xinjiang Medical University, China

[Clinical Information]

Patient initials or identifier number:
W.J.
B121562
650106194611150028

Relevant clinical history and physical exam:
a 66-year-old woman (gravid3, para 3) with a previous history of hypertension for 13 years. She has repeated chest tightness and shortness of breath more than one year, felt chest pain for 4 months and increase two weeks. The patient is not a smoker.

Relevant test results prior to catheterization:
The Electrocardiograph (ECG) prompt sinus bradycardia and ST-T changes of V1-V3.
The echocardiography showed aortosclerosis and Aortic incompetence(mild).

Relevant catheterization findings:
The Coronary angiography shows a lesion located in the distal LMCA and proximal LAD and LCX with an unknown character. It looks like a thrombosis lesion.

[Interventional Management]

Procedural step:
1) The CAG showed a thrombosis-like lesion at the distal LM and proximal LAD and LCX
2) RUNTHRUOGH wire to distal LAD, BMW wire to distal LCX, aspiration thrombectomy was performed in LM, LAD and LCX. Result: no thrombosis was found and the blood flow didn’t change.
Case Summary:
This case was finally diagnosed as a severe calcified plaque by IVUS. However, the calcified plaque is not typical in CAG, which shows a thrombotic feature in CAG. With the help of IVUS technique, we did a successful PCI and no restenosis and incomplete stent apposition was found post PCI. What we can learn from this case is that IVUS has a high specificity and sensitivity in calcified lesion, we should make full rational use of this advantage to develop a better strategy.

TCTAP C-061
Aneurysmal Formation and Endothelial Dysfunction Induced by Overdilation with Kissing Balloon Inflation During 3 years Follow-up After Drug-eluting Stent Implantation
Yoshinobu Marusato
New Takushoku Hospital, Japan

[Clinical Information]
Patient initials or identifier number:
Case 1: 126832
Case 2: 127858

Relevant catheterization findings:
Case 1: The CAG showed a 1-0-1 lesion in the LAD-diagonal bifurcation.
Case 2: The CAG revealed a 1-1-1 lesion in the LAD-diagonal bifurcation.

[Interventional Management]
Procedural step:
Case 1: The intervention was performed with trans-femoral approach (6Fr). The IVUS revealed a negative remodeling in the main vessel (MV) with tight stenosis in its proximal part and eccentric calcified lesion in the side branch (SB) ostium. The bifurcation lesion was treated with cross-over stenting using a 3.0/28mm Cypher select stent (SES) followed by kissing balloon inflation (KBI) with 2.5 and 2.25mm balloons.
The 9-month follow-up CAG did not show any restenosis or ectasic lesion in the treated site.
The 3-year follow-up CAG demonstrated restenotic lesions in both edge of the stent and ectasic lesion in the part of stent deployment. The LAD flow was deteriorated to TIMI grade I. The OCT revealed the complete intimal coverage of the roundly dilated stent in the distal MV, however, malaposition and intra-strut hallo were observed in the proximal MV. The overdilation by KBI might lead to destruction of internal elastic lamina and persistent inflammation, which resulted in ectasic degeneration after SES deployment.
Case 2: The intervention was performed via trans-radial approach (6Fr). The IVUS showed a positive remodeling with tight lesion in the MV and an eccentric fibrous lesion in the SB ostium. The lesion was treated with cross-over stenting using a 3.5/23mm Xience V stent (EES) followed by KBI with 3.5 and 2.75mm balloons.
In the 9-month follow-up CAG, the LCA was still spastic except for the stent-embedded area even after NTG injection, which suggested a possibility in the edge stenosis. The 15-month follow-up CAG showed some regression of the stenosis in both stent edges. The 3-year follow-up CAG revealed no stenotic lesion, which suggested the inflammation in the overdilated area may evoke the spasm. The OCT showed complete endothelialization on the EES. Since the vasospasm around the stent has been resolved according to the time course, the EES has a potential to sedate inflammation even in the overdilated area.

TCTAP C-062
Thrombus or Calcified Nodule? Acute Coronary Syndrome Caused by Left Main Disease
Hidetaka Nishina
Tsukuba Medical Center Hospital, Japan

[Clinical Information]
Patient initials or identifier number:
Case 1: 126832
Case 2: 115504

Relevant clinical history and physical exam:
A 60 year old gentleman presented to the emergency department for progressive chest pressure at rest as well as on light exertion since 4 days prior to his presentation. His coronary risk factors included hypertension and prior history of cigarette smoking. He was normotensive on admission and the physical examination was unremarkable.

Relevant test results prior to catheterization:
A 12-leads electrocardiogram was normal and the echocardiogram showed preserved LV systolic function (LVEF 60%) without significant regional wall motion abnormality. The blood test results were also unremarkable except for positive troponin-T.

[Interventional Management]
Procedural step:
After completion of the diagnostic coronary angiography, we thought the distal LMCA lesion represent either thrombus or nodular calcified plaque. We felt a larger