

TCTAP C-073

Percutaneous Coronary Intervention in an 86 Year Old NSTEMI Female - Distal Left Main Bifurcation Critical Stenosis Complicated with Abdominal Aorta Nearly Occlusion*Tien-Yu Wu**Buddhist Tzu Chi General Hospital, Taiwan***[Clinical Information]****Patient initials or identifier number:**

86 y/o female

Relevant clinical history and physical exam:

CC: Acute chest pain for more than 20 minutes without relieving factor since one day prior to admission

PHx: DM, HTN, Hyperlipidemia, Intermittent claudication

PE: With normal limited

Relevant test results prior to catheterization:

Initial cardiac enzyme normal (CK, CKMB, Troponin I)

EKG: NSR without STT changes

Heart Echo: Preserved LV function without MR

CXR: No pulmonary edema

Relevant catheterization findings:

CAG: RCA: insignificant stenosis

Distal LM bifurcation critical stenosis. Middle LCX severe stenosis.

Arteriography: Mid abdominal aorta near total occlusion

[Interventional Management]**Procedural step:**

1. We did CAG from R't radial artery with Fr.6 terumo sheath with revealed CAD LM and middle LCX disease. CABG was recommended but strongly refused by patient and her families because of age and surgical risk. She was given dual ASA and Low molecular weight heparin.
2. Acute chest pain occurred thus emergent PCI done on the next day. Cardiac enzyme elevated with EKG ST depression observed. Blood pressure drop to 80-90 mmHg. We planned to do emergent IABP assisted PCI. (We also prepare PCPS in the cath lab)

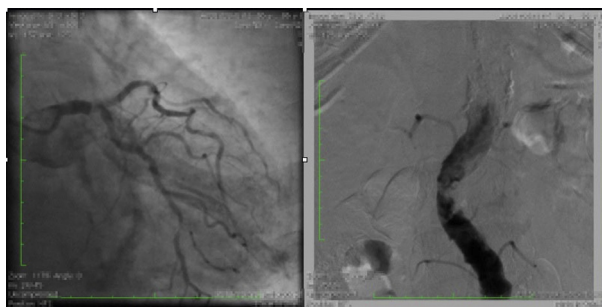
Fr. 8 Terumo sheath placed from R't common femoral artery but the wire couldn't pass the middle abdominal aorta. Arteriography showed critical stenosis of abdominal aorta. We introduced the control V-18 wire followed by balloon angioplasty with Mustang 8.0 x 40 mm balloon. Volcano IVUS check After POBA and then we placed IABP from L't common femoral artery and inserted Fr.8 JL 4 guiding catheter.

After engaged, we inserted the Fielder FC wire to LAD and did balloon angioplasty with Tazuna 1.5 x 15 mm balloon. We introduced runthrough hypercoate wire to LCX and we check the LM by IVUS.

We repeated balloon angioplasty with Tazuna 2.5 x 15 mm in middle LCX followed by DES (Xience Prime 2.5 x 18 mm) placed.

We performed SKS in distal LM to LAD and LCX (Xience Prime 3.5 x 18 mm in LCX, 3.5 x 23 mm in LAD)

The LVG showed good LVEF.



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Kinds of Dilemmas Dealed with Optimal Strategies - Provisional T-stenting in a Left Main Distal Bifurcation Lesion with Complex Coronary Anatomy Including Severe Tortuosity and Calcification*Tao Yin, Chengxiang Li**Xijing Hospital, China***[Clinical Information]****Patient initials or identifier number:**

X. Q. F.

Relevant clinical history and physical exam:

77 years old, female

Chief complaint: Chest distress for 3 months, worse since 3 days ago

PE: Normal

Relevant test results prior to catheterization:

ECG: ST-T changes in anterior leads

UCG: left ventricular diastolic dysfunction, decreased motion in anteroapical wall, EF 50%

cTnl: (-)

Relevant catheterization findings:

RCA: proximal, middle 80%-90%

LCX: proximal 99%, middle 30%, distal 80%, OM1 90%, OM2 60%

LAD: proximal 50%, middle distal 70%-80%, D1 80%

Multivessel coronary artery disease

Relative small RCA

Severe tortuosity and calcification in both RCA and LCA

Very short left main trunk

[Interventional Management]**Procedural step:**

None of EBU 3.0, 3.5, 3.75 can be engaged well via transradial access.

Change to transradial access rather than other types of guiding catheters.

Left main (LM) bifurcation can not be viewed clearly through routine projection angles.

LAO 15° CAU 35° was screened to be the optimal projection for the proximal lesion in LCX.

Which revascularization strategy should be chosen, PCI or CABG, complete revascularization (CR) or incomplete revascularization (ICR), single or two-stent for LM bifurcation?

The patient preferred PCI over CABG after angiography in primary hospital, which can not be done there, and so she was transferred to Xijing hospital.

ICR was decided based on the very complex coronary lesion and characteristic of the patient.

Single-stent is prior to two-stent even in LM distal bifurcation according to the recent study of Park SJ et al from Asan Medical Center.

EBU3.5 guiding catheter and BMW guidewire were used, with rotational atherectomy standby.

Lesion in LCX proximal was predilated with a 3.5mm×6mm cutting balloon @ 12-14atm.

5.0mm×12mm DES was deployed in LM-LCX @ 9atm with stent proximal post-dilatation @ 14atm.

The stent was postdiluted with a 4.5mm×15mm non-compliant balloon @ 24atm.

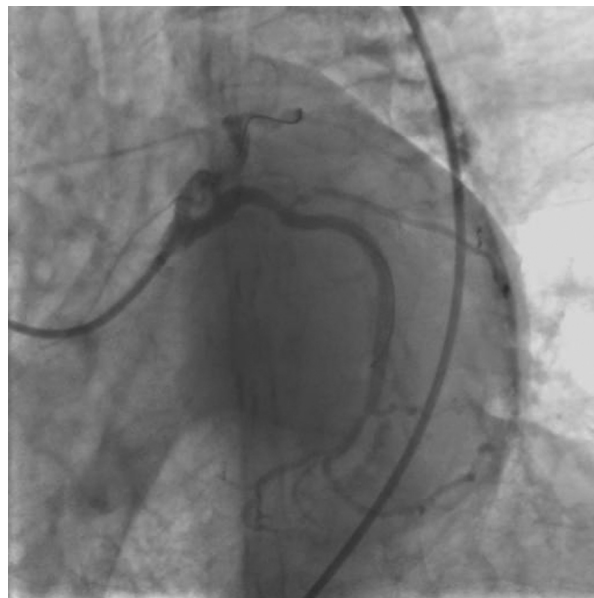
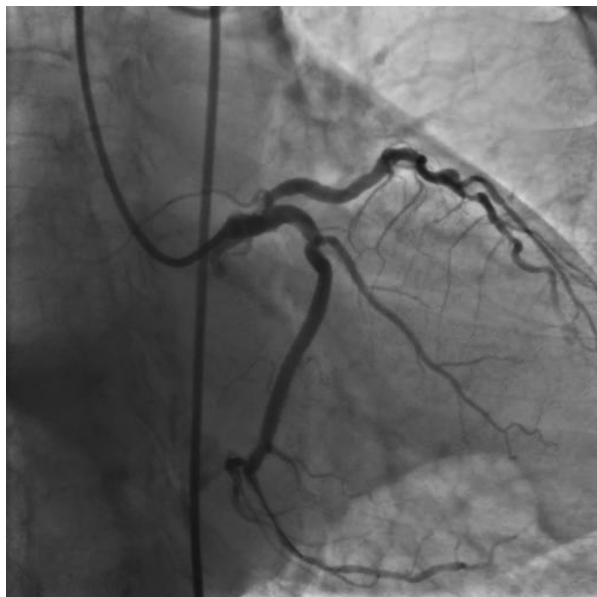
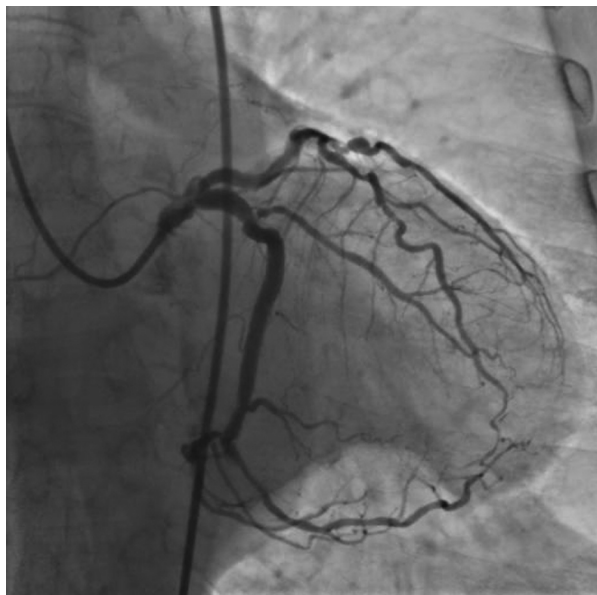
The LAD ostium seems to be compromised after the cross-over technique. How to treat it?

Two-stent strategy should be considered carefully, since it will increase the risk of this procedure significantly due to the stent in LM and severe calcification.

According to another study of Park SJ et al from Asan Medical Center, functional assessment with post-stenting FFR is needed to determine how to treat the angiographically-jailed side branch, and angiographic or IVUS based decision making may frequently lead to unnecessary procedures.

FFR was measured in LAD, and provisional T-stenting had to be adopted since the value was 0.72.

Runthrough guidewire was forwarded into LAD and the stent strut was predilated with a 2.5mm×15mm balloon @ 22atm.
3.5mm×13mm DES was deployed in LM-LAD @ 12atm.
Final kissing dilatation was achieved with 4.0mm×12mm non-compliant balloon in LCX @ 12atm and 3.0mm×15mm non-compliant balloon in LAD @ 12atm.



TCTAP C-075

Reverse Wire Technique After the Stent Implantation

Kotaro Yutaka

Osaka Saiseikai Izuo Hospital, Japan

[Clinical Information]

Patient initials or identifier number:

N.N

1679553

Relevant clinical history and physical exam:

This is 70's gentleman known history of diabetes mellitus, dyslipidemia and hypertension on medical therapy. He complained of chest pain on effort since 2 months. His 3DCT showed that total occlusion in the RCA. He was admitted to our hospital for PCI to RCA on Jul 3rd 2012.

Relevant test results prior to catheterization:

His ECG showed small q wave in III, aVF. His UCG showed that the hypokinesis in inferior wall.

Relevant catheterization findings:

He underwent for CAG on Jun 2012. It showed that there are severe stenosis in proximal RCA and total occlusion in distal RCA. There were no significant stenosis in LAD and Cx.

[Interventional Management]

Procedural step:

We performed PCI to RCA CTO on Jul 2012. We performed PCI from retrograde approach first because the CTO distal exit was #4PD and #4AV bifurcation. We wanted to avoid the side branch lost. We could cross the SION wire from the LAD septum channel to #4PD. Then we performed the Reverse CART technique in the RCA distal near from the #4PD and #4AV bifurcation. We tried to protect the #4AV but we made the wire injury in #4AV ostium. We implanted 4 drug eluting stents from RCA proximal to #4PD. We could open the #4PD but we lost the #4AV at that time.

He underwent for restudy CAG on Dec 2012. Those stents had no ISR and the #4AV blood flow was recovered and better than before. We performed PCI to this lesion again. We tried to cross the wire from antegrade using the SION and Ultimate3 wires with the Crusade micro catheter but these wires couldn't pass through the lesion because of the acute angle. So we performed the Reverse wire technique using the Crusade microcatheter with Fielder FC wire. This wire could cross this acute angle with the Reverse wire technique, and then we changed the micro catheter from the Crusade to the Corsair. The Corsair could passed through this acute angle lesion and changed the wire to the SION. After these we performed the kissing balloon technique between #4AV and #4PD with 2.25mm and 2.5mm balloons. We could get the good blood flow both arteries.