Case Summary:
Hybrid procedure was safe and feasible. It provides opportunity of complete revascularization during single procedure combining the best elements of both PCI and CAGB.

TCTAP C-142
Dislodged Stent Due to Stent Delivery Balloon Rupture
Nobuyuki Miyai
Koseiikai Takeda Hospital, Japan

[Clinical Information]
Patient initials or identifier number: SX

Relevant clinical history and physical exam:
The case is a 81-year-old Japanese female. Her coronary risk factor was diabetes mellitus, dyslipidemia, and hypertension. She had chest discomfort during some activity. She was suspicious of ischemic coronary artery disease and admitted to our hospital. She had severe difficulty in hearing and speaking.

Relevant test results prior to catheterization:
Electrocardiogram showed sinus rhythm and no ST-T change. Echocardiogram revealed good cardiac function.

[Interventional Management]
Procedural step:
Coronary angiography revealed significantstenosis of mid-portion of the left ascending coronary artery (LAD).

[Interventional Management]
Procedural step:
Target lesion was the mid-portion of LAD. The coronary system was cannulated using a 5 Fr IL3.5 guiding catheter by right radial artery approach. The SHION wire was advanced and performed Intravascular ultrasound (IVUS) study. We confirmed a ring-like calcification in the proximal of the target lesion. So, the lesion was predilated with a 2.5mmx13mm diameter Lacross non slip element balloon (NSE). When we inflated with the NSE at 12 atm, the NSE was ruptured. Then, we used a 3.0mmx15mm diameter high pressure balloon. When we inflated this balloon at 12 atm, the indentation of balloon was disappeared. So, we advanced a 3.0mmx28mm diameter Xience Prime stent at the mid portion of LAD. When we inflated with the stent until 8 atm, the stent delivery balloon was ruptured. We could not expand the stent again by this stent delivery balloon. The proximal site of the stent was slightly expanded and the distal site of the stent was fit on the stent delivery balloon. So, when we pulled the balloon, this stent could move together. But, the proximal edge of the stent was caught at the tip of the guiding catheter and we could not retrieve into the guiding catheter. We engaged a 7Fr IL3.5 guiding catheter via right femoral artery. We captured the stent by a snare wire. But, it was difficult to retrieve the stent because the distal site of the stent was fastened on the balloon. We rubbed off the stent from the balloon with the two guiding catheter and successfully retrieved the stent. We performed IVUS study again and deployed a 3.0x28mm diameter Nobori stent at the mid-portion of LAD. We expanded the stent with a 3.0mmx18mm diameter high pressure balloon and the final angiogram showed TIMI 3 grade flow.

Case Summary:
We performed PCI for the mid-portion of LAD. When we inflated with the 3.0mm x 28mm diameter Xience Prime stent until 8 atm, the stent delivery balloon was ruptured. We could not expand the stent again. So, we retrieved the stent.

TCTAP C-143
Absorb Stenting in Acute STEMIs: How I Did It
Arun Patodia, Rohit Manoj
PGIMER, Chandigarh, India

[Clinical Information]
Patient initials or identifier number: Patient gk, 50 years male

Relevant clinical history and physical exam:
Rest angina from last 3 hours

Relevant test results prior to catheterization:
Echo: severe hypokinesia of LAD territory, LVEF 35%

[Interventional Management]
Procedural step:
1. Guide cebu 3.5: LAD/D1 Bifurcation Lesion
2. Uniform expansion of 2.5 x 15 mm lab balloon.
3. Absorb stent 3x28 mm positioned in proximal to mid lAD.
4. Absorb stent remained undereexpanded.
5. Check angio: waist persisting.
6. Post dilated with quantum 3.5x8mm balloon @ high pressure.
7. Uniform expansion of LAD stent.

Patient was fine.

Case Summary:
Patient gk, 50 years male with Rest angina from last 3 hours admitted in our institute for PTCA. Absorb (BVS) was deployed & Patient was fine. Take home message from this case is Operator has implanted 40 absorb stents and two out of 40 was deployed in setting of acute MI. Although data is limited absorb can be used in acute MI setting.

TCTAP C-144
Biovascular Scaffold Recoil
Karthik Tummala, Jabir Abdallakatty, Rony Mathew
Lisse Hospital, India

[Clinical Information]
Patient initials or identifier number: TSV

Relevant clinical history and physical exam:
A 50 years old male
Newly detected Diabetic, Hypertensive & Dyslipidemic
No family h/o CAD
Recent onset dyspnea, NYHA class II

Relevant test results prior to catheterization:
Good LV function, no Regional wall motion abnormality
TMT – positive for inducible ischemia

Relevant catheterization findings:
Single vessel disease

[Interventional Management]
Procedural step:
Frustal Radial approach, 6F EBU 3.5 coronary guide was used to cannulate the Left main.Ag 0.014" Balanced middle weight wire was used to wire the Left anterior descending artery.The lesion distally was pre dilated with a Boston Maverick 3x15 balloon at 14 atm, check angiogram showed a residue of 70% stenosis.A serial predilation was done with Boston Maverick 3 x 15 at 12-14 atm.The lesion was stented with Absorb BVS 3.5 X 28 mm at 12 atm. There was a residue to 50 % in check angiography.then the stented area was post dilated with non-compliant Boston Quantum Maverick Balloon 3.5 x 8 mm at 18 atm and non-compliant Balloon 4x 8 mm at 18 atm serially.

During balloon dilatation the vessel goes to 3.5 mm and recoils after deflation. There was a residue of 40% in the stented area in the distal LAD.The proximal LAD lesion was predilated with Boston Maverick 3.5 x 15 balloon at 12 atm, and was stented with Absorb 3.5 x 18 mm at 12 atm with an overlap into the distal stent. Then the stented area was post dilated with Boston Quantum Maverick Balloon 4x 8 mm non-compliant balloon at 14 atm. 

Case Summary:
There is a acute recoil of the vessel after angioplasty and the biovascular scaffold goes along with the recoil without much radial support.

TCTAP C-145
A Case of Very Late Stent Thrombosis and Stent Fracture: A Serial Optical Coherence Tomography Study
Tomoyuki Tsurugayu
Wakayama Medical University, Japan

[Clinical Information]
Patient initials or identifier number: S.H

Relevant clinical history and physical exam:
Hypertention, chronic renal failure

[Interventional Management]
Procedural step:
We performed follow-up coronary angiography three years after implantation of paclitaxel-eluting stent (PES) and suggested stent thrombosis in the PES. We detected stent structure and thrombus by optical coherence tomography.

Case Summary:
Very late stent thrombosis (VLSST) after drug-eluting stent implantation is rare, but a serious complication. Causes of VLSST remain unclear. We experienced a suggestive case of a mechanism for stent thrombosis. A 55 years-old-man was implanted paclitaxel-eluting stent to mid-portion of right coronary artery (RCA) for effort angina about 3 years ago. He again suffered from effort angina 2 years ago, and coronary angiography (CAG) showed progressive stenosis of proximal region of RCA. He was implanted another everolimus-eluting stent to proximal region of the PES. Optical coherence tomography (OCT) presented late acquired malapposition in the PES, but we didn’t perform additional intervention. Three years after the first coronary intervention, CAG showed stent thrombosis in the PES. OCT revealed thrombosis and stent fracture of the PES. Serial OCT examination exposed one cause of stent thrombosis.

TCTAP C-146
Recurrent Syncope Due to Anomalous RCA
Yian Yang, Lin Xue Bo
Shanghai East Hospital Tongji University, China

[Clinical Information]
Patient initials or identifier number: guoxiaoxing

Relevant clinical history and physical exam:
M. 74 years old
Chief complaint: Recurrent syncope for 15 time in 13 years; syncope happened almost happened in every half year, syncope could happened in anywhere and any situation
Concomitant symptom: substernal pain, usually occurred in night, and when pain persistent syncope would happened. And no palpitation or cold sweat
History: Hypertension for 20 years, BP controlled well. Denied diabetes, Smoking.

Relevant test results prior to catheterization:
No abnormal Lab Examination (blood routine, liver function and renal function)
Cranial MRI and MRA: lacunar cerebral infarction, no hemorrhage stroke or cerebrovascular malformation.

Electroencephalogram: negative

Head-up tilt test: negative

Holter: no obvious arrhythmia

No hypoglycemia was monitored in other hospital.

Computed tomography image showing the right coronary artery (RCA) arising from the left sinus of Valsava, and RCA is between the pulmonary artery (PA) and the aorta (Ao) (Green arrow).

Relevant catheterization findings:

right coronary artery originate from the left sinus of valsalva, and it seemed that it was compressed by the aorta and pulmonary artery, to confirm this, we carried out IVUS.

[Interventional Management]

Procedural step:

1. 6F JR 4.0 was engaged in RCA;
2. 0.014” Runthrough wire was advanced to distal of RCA;
3. IVUS found that the proximal segment of RCA was compressed by Pulmonary artery and aorta;
4. 3.5*28mm DES was planted in the proximal segment of RCA

Case Summary:

1. 6F JR 4.0 was engaged in RCA;
2. 0.014” Runthrough wire was advanced to distal of RCA;
3. IVUS found that the proximal segment of RCA was compressed by Pulmonary artery and aorta,
4. 3.5*28mm DES was planted in the proximal segment of RCA
5. Take home message:

- Coronary artery anomaly is an unusual cause of syncope
- MSCT can provide 3D visualization of the artery, and may be the most promising imaging modality for diagnosing these anomalies.
- IVUS allow dynamic change of the interventricular compression, and can provide information to PCI or CABG
- Surgical correction or CABG can get good anatomic and functional results

PCI is an alternative option which is safe and effective

TCTAP C-147

Saphenous Vein Graft Intervention with Bioresorbable Vascular Scaffold and Self Apposing Stents

[Clinical Information]

Patient initials or identifier number: JJ

Relevant clinical history and physical exam:

53-year-old man with with triple vessel disease underwent coronary artery bypass grafting in 2001. He has hypertension, diabetes mellitus and hypercholesterolemia. He was asymptomatic till 2010 with episodic chest pain. Coronary angiogram showed severe triple vessel disease with patent SVG-RCA, LIMA-LAD and SVG-OM with poor distal run-off. Exercise stress test showed inferolateral ischemia at moderate workload. This was followed by an episode of hospitalisation for acute coronary syndrome. In patient coronary angiogram revealed occluded RCA with subtotally occluded SVG-RCA, patent LIMA-LAD and patent SVG-OM with poor distal run-off.

Relevant test results prior to catheterization:

- Cardiac enzymes not raised. ECHO- moderately reduced left ventricular systolic function.

Relevant catheterization findings:

- Left main-minor disease, 90% ostial LAD stenosis followed by occlusion in mid LAD, occluded distal RCA and proximal Lcx. SVG-RCA subtotally occluded, SVG-OM - prox 90% stenosis and distal aneurysmal disease and 80% stenosis with poor distal run-off.

- After clinical consultation 1 week later, he wished for PCI intervention for the SVG-OM, 7F femoral sheath in left femoral artery. 7F LCB guide to engage SVG-OM. Sion Blue wire down the graft. Predilated the proximal SVG-OM lesion with Trek 2.5x10mm balloon to facilitate delivery of Stentys to distal SVG. The Trek 2.5x10mm balloon could not cross the distal lesion. We used Minitrek 1.5x15mm to predilate distal lesion followed by Trek 2.5x10mm balloon. We deployed Stentys 3.5-4.5x22mm distally and overlapped with another Stentys 3.0-3.5x22mm. Postdilated with NC Treck 5.0x12mm. The proximal SVG lesion was stented with Xience 2.75x15mm.

Case Summary:

- This is a case of acute coronary syndrome with almost no flow down the SVG-RCA. We postulated that there might be heavy thrombus burden and biochemicals. Graft filter may not be helpful. We opted for direct aspiration with Export Advance. Slowly the flow improved. Predilated the SVG lesion with Trek 2.5x12mm balloon. Good trackability of BVS 3.0x28mm and deployment. Postdilated the BVS with NC Sprinter 3.5x15mm balloon.

- This case illustrated the successful rescue of a freshly occluded SVG with direct mechanical aspiration and stenting of SVG with BVS.

As for the SVG-OM, we used self apposing stents for the distal SVG with aneurysmal segment.

We aim to prolong the graft patency and reduce his angina symptoms.

TCTAP C-148

Two Cases of Developed Coronary Spasm Angina After Implantation of Biolimus Eluting Stent

Naoko Yozawa, Keiki Sugi

Saitama Medical University International Medical Center, Japan

[Clinical Information]

Patient initials or identifier number: 1. M.K
2. M.C

[Interventional Management]

Procedural step:

1. GC: AXESS/7FrL3.5 Wire: ASahi Sionblue/ASahi
2. TCTAP Abstracts/CASE/Drug-eluting Stents S157
3. SION Others: Corsair Ballon: LAXA2.0x15mm/NCTREK2.5x18mm Stent:Nobor2.75x18mm/2.5x8mm
4. 0.014
5. 6F JR 4.0 was engaged in RCA;
6. 0.014” Runthrough wire was advanced to distal of RCA;
7. IVUS found that the proximal segment of RCA was compressed by Pulmonary artery and aorta;
8. 3.5*28mm DES was planted in the proximal segment of RCA

Case Summary:

1. AML in September 2011. We performed PCI to LAD. However he admitted for developed chest pain.
2. We provocation Ach. We diagnosed CSA.
3. The onset of ACS in 2011. We performed PCI to LAD. However he admitted for developed chest pain. We provocation Ach. We diagnosed CSA.

TCTAP C-149

An Immediate Thrombosis in Right Coronary After a Stent Implantation

Xue Ye, Fausi Ji

Beijing Hospital of the Ministry of Health, China

[Clinical Information]

Patient initials or identifier number: L.K Fu

Relevant clinical history and physical exam:

A 68 year-old man was admitted with effort chest pain for 1 month and get worse in recent 2 weeks. His coronary risk factor was ten years history of diabetes, hyper-tension, hyperlipidemia and heavy smoking. The physical examination was normal.

Relevant test results prior to catheterization:

- The ECG and cardiac enzymes were unremarkable. The echocardiography showed normal left ventricular systolic function (EF = 65%) without regional wall motion abnormality.

Relevant catheterization findings:

- Left coronary angiogram showed mild stenosis at ostial LM as well as ostial and mid LAD. The LCX has a intermediate stenosis in ostial part.

- The right coronary angiogram showed tight narrowing of mid RCA and PL.

[Interventional Management]

Procedural step:

1. A 6 Fr sheath was inserted through right radial artery, and the right coronary ostium was engaged with an 6 Fr SAL 1.0 guide catheter. A Whisper 0.014-inch guidewire were inserted at distal PL. Predilatation was performed with a 2.5x 15mm Fire Star balloon at mid RCA. After predilatation, Resolute stent 2.5x14mm was directly implanted at PL. Resolute stent 4.0X15mm was implanted at mRCA. Patient complained heavy chest pain and EKG showed ST segments elevated in lead II, III and aVF. The following angiogram showed acute occlusion in mid RCA stent and thrombus was seen in the proximal part of the stent. We did the thrombus aspiration of RCA with thrombustrice II catheter for several times and a few clot was sucked out. At the same time. Tirofiban was given both through coronary and intravenous injection. Angiogram showed the blood flow back to TIMI 3 right after aspiration but still appeared hazy in the stent. Then we performed IVUS examination to identify the hazy lesion in mRCA. IVUS showed both thrombosis and dissection in the proximal vessel adjacent to the stent. Stent under-expansion was suspected. Therefore, we postdilated the stent with a 4.0-10mm Sapphire NC balloon and intended to implant another stent to cover the dissection. Unfortunately, the second Resolute 4.0X15mm stent can not get to the lesion even with buddy wire.

- After a week of intensive antithrombotic therapy, we performed the second PCI of mRCA.

- With deep seat AL 10.0 guide catheter and buddy wire techniques, we successfully implant the Element PROMUS 4.0x15mm stent in the mRCA overlapping the previous stent. Final angiogram showed that the procedure was successful.