Case Summary:
88 years old woman has hypertension, dyslipidemia, chronic kidney disease and old stroke. She presented with gangrene change combined with ulceration and infection at left big toe for 3 week. Non invasive exam revealed left popliteal artery occlusion. Intervention procedure was performed by antegrade approach. The angiography showed total occlusion of left distal popliteal artery. The multipurpose catheter 6.0 Fr was advanced into the distal popliteal artery. First, we try to wiring peroneal artery by a 0.014 inch PT II and Astato 30 guide wire with CXI microcatheter. After a series of balloon dilation, the angiography showed real rout of the peroneal artery, also middle ATA seemed by better collateral circulation.

Then, we performed retrograde dorsal pedis and Retrograde wire advanced to proximal ATA soon but it could not pass though the occlusion. Retrograde loop technique was performed with V-18 J-configuration under CXI support, but it couldn’t re-entry into popliteal artery true lumen. Then CART technique was performed at proximal ATA and antegrade wire advanced smoothly to distal ATA. After a series balloon dilation, ATA recanalization. A 4.0*12 mm drug eluting balloon was used for treating popliteal artery. Final, angiography revealed popliteal, ATA and peroneal recanalization successful. Distal run off of left foot was improved.

TCTAP C-190
Difficult Iliac Total Occlusion - When You Don’t Have an Outback Catheter
Mu-Yang Hsieh
National Taiwan University Hospital, Taiwan

[Clinical Information]
Patient initials or identifier number:
Huang, MRN: 807803
Relevant clinical history and physical exam:
A 45-year-old man, with left leg claudication for 1 year.
Pulseless left common femoral artery, popliteal artery, and below the knee vessels.
Relevant test results prior to catheterization:
Lower limb vascular Duplex study revealed severe stenosis or occlusion of common iliac artery.
Relevant catheterization findings:
Total occlusion of left common iliac artery. Stenosis of right common iliac artery.

[Interventional Management]
Procedural step:
# Bilateral retrograde puncture of common femoral arteries under echo-guidance.
# 0.035 Terumo GlideWire retrograde subintimal tracking of total occlusion in iliac artery.
# Failed to reach true lumen in distal abdominal aorta.
# Contralateral retrograde approach with JR4 5 Fr catheter using 0.035 Terumo GlideWire. Failed.
# Outback catheter not available!
# Using a scissor to shorten the JR4 catheter tip with a better angled tip.
# Utilizing a CTO coronary wire (Provia) to recanalize the true lumen.
# With the reverse CART technique (retrograde Fox 5x60 mm balloon).
# With a better angled JR4 “short-tip", Provia can serve as a puncture wire (like Outback).
# Complete the procedure with over-the-wire balloon (Fox 5x60 mm) with self-expandable stents.
A 45-year-old man presented with a 1-year history of left leg claudication. The walking length was limited to 100 meters. A vascular Duplex found evidence suggestive of bilateral iliac artery flow limiting lesions. Angiography found total occlusion of left common iliac artery. The procedure was performed with bilateral femoral punctures with multiple attempts to recanalize the iliac occlusion. The recanalization process was nearly abandoned due to difficulty in reentry to the true lumen. The Outback catheter was not available at the time of the procedure. A JR4 catheter tip was shortened by scissors. Then a coronary CTO wire was used while the JR4 with shortened tip aiming at the correct direction for penetration. The re-entry process was successful with reverse CART technique. The procedure was then completed with self-expandable stents to iliac bifurcations.

**TCTAP C-192**

**Targeted Adjustable Pharmaceutical Application System (TAPAS) Catheter Assisted Thrombolysis in Cirrhotic Patient Contraindicated for Thrombolysis**

Chung-Ho Hsu
China Medical University Hospital, Taiwan

**[Clinical Information]**

Patient initials or identifier number: Ho Chen Swei Tao

**Relevant clinical history and physical exam:**

This 82 year old lady with a history of liver cirrhosis, HBV related, Child C was admitted due to right leg edema. Physical examination disclosed unilateral right leg edema.

**Recent test results prior to catheterization:**

D-dimer was positive and vascular ultrasound disclosed thrombotic occlusion of right femoral vein.

**Relevant catheterization findings:**

Angiography disclosed thrombus with total occlusion over right femoral vein.

**Interventional Management**

**Procedural step:**

A 7 Fr sheath was inserted to left femoral vein and G2X retrievable IVC filter was implanted below renal vein and above iliac vein bifurcation. A 8 Fr Cook crossover sheath was advanced from left common femoral vein to right common femoral vein (RCVF). Targeted Adjustable Pharmaceutical Application System (TAPAS) balloon infusion catheter was inserted under assistance of a 0.414" PT2 300 cm wire. Thrombus over RCVF and proximal femoral vein was identified and isolated by two balloons inside TAPAS catheter. Heparin 3000 units, urokinase 48000 units were given for localized thrombolysis within TAPAS catheter. After drug retension for 20 minutes, drug was removed. The residual thrombus was dilated with a 8.0/40 mm Admiral balloon at 6 atm, 12.0/40 mm Admiral balloon at 6 atm for fragmentation. A 8 Fr JR4 guiding catheter and RESS guiding catheter was used for thrombectomy. Mild residual thrombus was noted with adequate angiographic result and TIMI-3 flow achieved.

**Case Summary:**

This 82 year old lady with a history of liver cirrhosis, HBV related, Child C was admitted due to right leg edema for weeks and deep vein thrombosis was noted with much thrombus found over right femoral vein. Due to contra-indication for systemic thrombolysis, and also risky for catheter-directed thrombolysis (CDT), we use TAPAS catheter. A 75 years old patient has the risk factors of diabetes, hypertension and dyslipidemia for many years. He had bilateral SFA occlusion and underwent bypass surgery 10 years ago. He had left foot chronic ulcer wound with resting pain for 3 weeks. Under the diagnosed of CLI, he admitted for further evaluation and treatment.

**Relevant test results prior to catheterization:**

- ABE left leg 0.5; right leg 0.8
- Relevant catheterization findings:
  - The left limbs angiography showed, vein-graft bypass from SFA to peroneal artery. However, stenosis at the SFA anastomosis & total occlusion at distal graft. The ATA showed moderate stenosis at proximal portion. 

**TCTAP C-193**

**Successful Stenting of a Native SFA After Failed Femoropopliteal Bypass Grafting**

Yao Hui Yi
Chi Mei Hospital, Losaying Branch, Taiwan

**[Clinical Information]**

Patient initials or identifier number: patient identifier no: 16978296, patient name: Wang Tao Shun

**Relevant clinical history and physical exam:**

A 75 years old patient has the risk factors of diabetes, hypertension and dyslipidemia for many years. He had bilateral SFA occlusion and underwent bypass surgery 10 years ago. He had left foot chronic ulcer wound with resting pain for 3 weeks. Under the diagnosed of CLI, he admitted for further evaluation and treatment.

**Relevant test results prior to catheterization:**

- ABE left leg 0.5; right leg 0.8
- Relevant catheterization findings:
  - The left limbs angiography showed, vein-graft bypass from SFA to peroneal artery. However, stenosis at the SFA anastomosis & total occlusion at distal graft. The ATA showed moderate stenosis at proximal portion. 

**TCTAP C-194**

**Endovascular Intervention Guided by Intravascular Ultrasound in Patient with Subclavian Artery Occlusion**

Seong Hyeon Hyeon, Sang Wook Kim
Heart Center, Chung-Ang University Hospital, Korea (Republic of)

**[Clinical Information]**

Patient initials or identifier number: KEY, 00949970