Relevant catheterization findings:
Tzial Angiogram revealed bilateral SFA occlusion at ostium and collateral flow from deep femoral artery.

[Interventional Management]
Procedural step:
At first, we insert the sheath from lt common femoral artery to perform endovascular therapy for rt SFA occlusion. We start antegrade approach with superficial US guide, but antegrade wire pass into the sub-intimal space. Second, we changed to retrograde approach. We insert the 3fr sheath from popliteal artery, and successfully rendezvous the wire. Following the pre-dilatation with balloon catheter, we implanted SMART stent (6*150mm 6*120mm) at rt SFA lesion. Finally, we used Angio-SEal for hemostasis at the lt femoral puncture site. Routinely we check the puncture site with contrast from lateral view, and use Angio-Seal by the book. However, lt femoral artery was not palpable after using Angio-Seal. We insert catheter from rt femoral artery, and angiogram revealed total occlusion of lt EIA. Superficial US revealed dissection from lt EIA to femoral. We insert the guiding sheath to lt EIA, and cross the wire with IVUS guide. Fortunately, wire pass through to the distal true lumen. After ballooning, true lumen of lt femoral artery did not dilated because hemostatic agent compressed true lumen. To improve the blood flow of lt leg, we implanted additional SMART stent (8*60mm 8*60mm) from lt EIA to femoral. Final angiogram revealed good antegrade flow of lt femoral artery.

Case Summary:
We report the successful bail-out of Acute arterial occlusion at puncture site after closure device use. Guide wire of Angil-seal might make dissection form lt femoral to EIA. We should take care for vascular complication when we use hemostatic devices.

TCTAP C-221

Endovascular Treatment of a Case with Aorto-iliac Occlusion-lerische

Kazushi Urasawa, Katsuhiro Kawaguchi
Tokeidai Memorial Hospital, Japan

[Clinical Information]
Patient initials or identifier number:
59yo Male
Relevant clinical history and physical exam:
Intermittent claudication (Rutherford 3)
Relevant test results prior to catheterization:
ABI: right 0.62, left 0.63

Relevant catheterization findings:
Chronic total occlusion of abdominal aorta and bi-lateral iliac arteries

[Interventional Management]
Procedural step
1. 4.5F sheathless guiding catheter was introduced from left brachial artery.
2. 6F sheath was introduced from right and left common femoral arteries.
3. Aorto-iliac occlusion was crossed by means of bi-directional wiring using 0.014" guidewires.
4. Balloon dilatation of occluded segment using small size balloon (2.0x40mm).
5. Intravascular ultrasound was used to confirm that two guidewires had passed the occluded segment intraluminally.
6. Pre-dilatation of the lesion using 4.0x60mm balloon.
7. Implantation of two self-expandable stents (7.0x100mm) to both iliac arteries.
8. Implantation of additional two self-expandable stents (8.0x100mm) from aorta to common iliac arteries.
9. Simultaneous post-dilatation of stented segment using two 6.0x40mm balloons.

Case Summary:
A case with aorto-iliac occlusion was treated successfully by endovascular technique. We used bi-directional wiring technique to cross the long occluded segment using 0.014" guidewires. IVUS was used to confirm that two guide wires passed the lesion intraluminally. After pre-dilatation of the lesion, two self-expandable stents were implanted at right and iliac arteries, then additional two self-expandable stents were implanted from abdominal aorta to both common iliac arteries (kissing stent). The final angiogram showed that the aorto-iliac occlusive segment was recanalized successfully without distal embolism. Ankle-brachial index was greatly improved after endovascular treatment: right 0.62 to 0.97, left 0.63 to 0.88. The patient’s symptom, Intermittent claudication, was completely disappeared after the treatment.
TCTAP C-223
Successful Endovascular Therapy for Acute Limb Ischemia Due to Kinking of Bilateral Grafts for Abdominal Aortic Aneurysm

[ Clinical Information ]

Patient initials or identifier number: S.N.

Relevant clinical history and physical exam:

Early sixties, male, he had suffered from claudication for years. Angiography revealed bilateral aortic aneurysm and stenosis of left common iliac artery (CIA). He underwent open repair using bifurcated graft (Triplex, Terumo, Japan) but severe pain occurred suddenly in left leg at the night of operation day. On next day, he was transferred to our division and diagnosed acute limb ischemia due to occlusion of left limb of bifurcated graft by physical findings.

Relevant test results prior to catheterization:

- Ultrasonic sonography of left femoral artery showed that Epic stent could stretch the kinked limb of graft. After successful EVT for SFA, he could discharge on his foot.

[ Interventional Management ]

Procedural step:

An emergency embolectomy was performed with hybrid surgical and endovascular intervention using a Fogarty balloon catheter and aspiration catheter through arterial sheath (Terumo, Japan) inserted from right arm revealed occlusion of left limb of bifurcated graft. At first, ante-grade proceeding of 0.018 Treasure guide wire (SJM, US) supported by 4 french angi-cather was tried but failed. Next, Xsupport micro-cather (Zeon, Japan) was inserted into left CFA for bi-directional approach. Retro-grade penetration of 0.018 Treasure guide wire was also quite difficult, so occlusion was thought to occur by kinking of limb of graft. Intra-vascular ultrasonography could help the guide wire to pass through tiny niche and pulling out the tip of the guide wire through ante-grade Destination was successful. On powerful back-up position by holding both ends of the guide wire, 6.0-20mm Jackal balloon (Kaneka, Japan) could pass through. After careful undersized balloononing, three (8.0-61mm, 10-60mm, and 12-41mm) Epic stents (Boston, US) were deployed in occluded limb of graft from distal to proximal. Post dilatation by 10-20mm Sterling ES balloon (Boston, US) at kinking part ended up with optimal result. One month later, angiography at endovascular therapy (EVT) for left superficial femoral artery (SFA) showed that Epic stent could stretch the kinked limb of graft. After successful EVT for SFA, he could discharge on his foot.

TCTAP C-224
Hybrid Surgical and Endovascular Intervention for Acute Limb Ischemia Due to Tumor Embolism of the Abdominal Aorta Originated from the Lung Tumor (Pleomorphic Carcinoma) Which Extended to the Left Atrium via the Pulmonary Vein

Nobuhito Yagi
Okinawa Chubu Hospital, Japan

[ Clinical Information ]

Patient initials or identifier number: M.G.

Relevant clinical history and physical exam:

A 62-year-old man presented to the emergency department complaining of sudden onset of numbness of bilateral lower limbs resulting in difficulty in walking. The patient had been previously well except for a history of hypertension and dyslipidemia. Physical examination revealed severe cyanosis of bilateral lower limbs and the pulse of the femoral arteries and distal arteries were not detectable.

Relevant test results prior to catheterization:

An electrocardiogram did not show atrial fibrillation. A huge mass shadow was detected in the left upper lung field in a chest roentgenogram. A computed tomographic (CT) scan of the chest revealed a huge mass (8 × 13 cm) with lobulated border and necrotic cavities. The tumor extended directly to the left atrium via the left pulmonary vein. A transesophageal echocardiography revealed huge mobile mass in the left atrium which protruded into the left atrial cavity during diastole. The abdominal aorta was totally occluded down to the common iliac arteries due to possible tumor emboli.

Relevant catheterization findings:

An emergency aortography showed that Epic stent could stretch the kinked limb of graft. After successful EVT for SFA, he could discharge on his foot.

Initial angiography through 6 french Destination guiding sheath (Terumo, Japan) inserted from right arm revealed occlusion of left limb of bifurcated graft. At first, ante-grade proceeding of 0.018 Treasure guide wire (SJM, US) supported by 4 french angi-cather was tried but failed. Next, Xsupport micro-cather (Zeon, Japan) was inserted into left CFA for bi-directional approach. Retro-grade penetration of 0.018 Treasure guide wire was also quite difficult, so occlusion was thought to occur by kinking of limb of graft. Intra-vascular ultrasonography could help the guide wire to pass through tiny niche and pulling out the tip of the guide wire through ante-grade Destination was successful. On powerful back-up position by holding both ends of the guide wire, 6.0-20mm Jackal balloon (Kaneka, Japan) could pass through. After careful undersized balloononing, three (8.0-61mm, 10-60mm, and 12-41mm) Epic stents (Boston, US) were deployed in occluded limb of graft from distal to proximal. Post dilatation by 10-20mm Sterling ES balloon (Boston, US) at kinking part ended up with optimal result. One month later, angiography at endovascular therapy (EVT) for left superficial femoral artery (SFA) showed that Epic stent could stretch the kinked limb of graft. After successful EVT for SFA, he could discharge on his foot.

[ Interventional Management ]

Procedural step:

An emergency embolectomy was performed with hybrid surgical and endovascular intervention using a Fogarty balloon catheter and aspiration catheter through ante-grade proceeding of 0.018 Treasure guide wire was also quite difficult, so occlusion was thought to occur by kinking of limb of graft. Intra-vascular ultrasonography could help the guide wire to pass through tiny niche and pulling out the tip of the guide wire through ante-grade Destination was successful. On powerful back-up position by holding both ends of the guide wire, 6.0-20mm Jackal balloon (Kaneka, Japan) could pass through. After careful undersized balloononing, three (8.0-61mm, 10-60mm, and 12-41mm) Epic stents (Boston, US) were deployed in occluded limb of graft from distal to proximal. Post dilatation by 10-20mm Sterling ES balloon (Boston, US) at kinking part ended up with optimal result. One month later, angiography at endovascular therapy (EVT) for left superficial femoral artery (SFA) showed that Epic stent could stretch the kinked limb of graft. After successful EVT for SFA, he could discharge on his foot.