TCTAP C-223
Successful Endovascular Therapy for Acute Limb Ischemia Due to Kinking of Bilobed Graft for Abdominal Aortic Aneurysm

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[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 abdominal 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:
Ultra-sound sonography and enhanced CT showed occlusion of left limb of bifurcated graft and patent common femoral artery (CFA) with poor collaterals.

[Interventional Management]
Procedural step:
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 (SIM, US) supported by 4 french angio-catheter was tried but failed. Next, Xsupport micro-catheter (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 ultra-sonography 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 ballooning, 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

Nobuhiro Yagi
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[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 ventricle across the mitral valve during diastole. The abdominal aorta was totally occluded down to the common iliac arteries due to possible tumor emboli.

Relevant catheterization findings:
An emergency angiography showed a total occlusion of the abdominal aorta at its bifurcation, which was presumed to be due to tumor emboli from the left atrium.

[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 femoral and distal arteries. A transesophageal echocardiography showed that Epic stent could stretch the kinked limb of graft. After successful EVT for SFA, he could discharge on his foot.
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 ventricle across the mitral valve during diastole. The abdominal aorta was totally occluded down to the common iliac arteries due to possible tumor emboli. An emergency aortography showed a total occlusion of the abdominal aorta at its bifurcation, which was presumed to be due to tumor emboli from the left atrium. An emergency embolectomy was performed with hybrid surgical and endovascular intervention using a Fogarty balloon catheter and aspiration catheter through arteriotomy in the bilateral common femoral arteries. Substantial amount of thromboembolic material including tumor-like tissue and thrombus were retrieved, and reperfusion to both lower limbs were successfully accomplished. The histopathologic examination of the retrieved material revealed pleomorphic carcinoma.

TCTAP C-225
Persistent Sciatic Arterial Aneurysm Documenting as Arteriosclerosis Obliterance Which Was Treated with Stenting and Kissing Balloon Technique
Hiroaki Yamamoto
Nagano Chuo Hospital, Japan

[Clinical Information]
Patient initials or identifier number:
ID:45385

Relevant clinical history and physical exam:
At 60 years-old, the patient suffered from hyperlipidemia and hypertension. Each diseases were well controlled. At 64 years-old when walking along the road, he suddenly suffered from left lower leg pain, and felt cold sensation. One month after, he consulted our hospital because the symptom was not becoming well. His left popliteal artery was weakly felt, and dorsal pedis was not felt at all. His ankle brachial artery index was 0.74. There was no arrhythmia in his pulse.

Relevant test results prior to catheterization:
Electrocardiogram showed almost no abnormality including arrhythmia. CK, AST, and LDH was all within normal range. CT angiography revealed left persistent sciatic artery and slight enlargement of diameter below the hip joint level.

Relevant catheterization findings:
His left superficial femoral artery was fairly hypoplastic, and persistent sciatic artery was observed. There was slight enlargement of artery at the level of hip joint. Just below knee, popliteal artery was occluded. Right femoral artery had normal appearance.

[Interventional Management]
Procedural step:
At first, guidewires (cruise, agosal) were inserted to posterior tibial artery (PTA) and anterior tibial artery (ATA). There was slight difficulty to pass CTO of PTA, and using IVUS the guidewire seemed to pass through pseudolumen. ATA lesion seemed to be thrombotic. So after KBT (Sterling2/20mm, Sterling4/60mm) of both arteries with POBA, the flow of PTA was incomplete. We preferentially recanalized ATA and deferred PTA stenting to be afraid of future stent thrombosis. Complaints of patient improved so much, however still he had intermittent claudication. Three month after, we retried angioplasty. This time, preoperative angiography showed complete occlusion of PTA and proximal sciatic artery had small aneurysm. We implanted stents (Express SD4/19, Genesis4/18mm) to PTA. After KBT of PTA and ATA, angiography revealed good dye opacification.

Case Summary:
Persistent sciatic artery aneurysm is rare disease, the number of which is slightly over 100 cases in English literature. Almost all documented cases were treated with surgical intervention. Reports concerning ITV including stenting were extremely rare. Two step intervention for such thrombosis-related lesion is fairly reasonable procedure and brings excellent results.