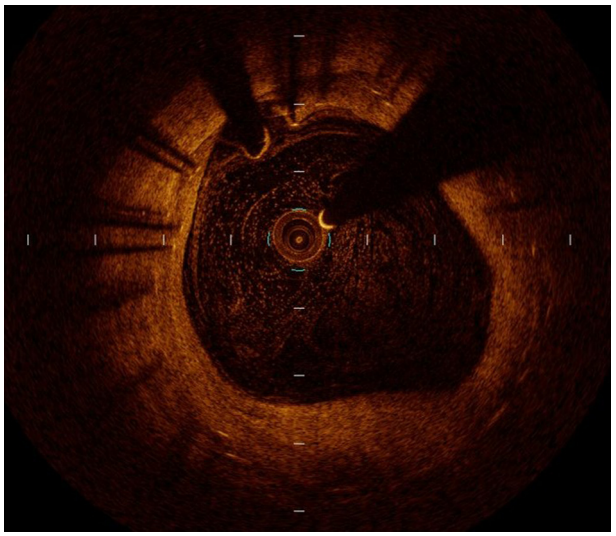

Case Summary. This is a rare complication case that ruptured balloon disparted from the shaft. Although stent deformation was invoked, the balloon was successfully retrieved. Stent patency is maintained up to 14 months. Stent malapposition was observed by OCT 8 months after implantation and surprisingly disappeared at 14 moths.

TCTAP C-188

Modified Transcollateral Approach for Infrapopliteal Chronic Total Obstruction

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[1]National Cerebral and Cardiovascular Center, Japan

[CLINICAL INFORMATION]

Patient initials or identifier number. S.T

Relevant clinical history and physical exam. A diabetic 85 years-old female with a non-healing ischemic ulcer on the rough 5th toe was referred to our vascular center for re-vascularization.

Ankle branchial index showed a false negative (right:1.30,left:0.82).

However, skin perfusion pressure in the foot was inability to measure due to serious pain, suggesting the likelihood of unhealing of the wound.

[INTERVENTIONAL MANAGEMENT]

Procedural step. Baseline angiography demonstrated triple vessels disease with chronic total occlusions in the all crural arteries complicated by severe stenosis in the popliteal artery.

In the 1st session, we successfully dilated the stenosis in the popliteal artery and the proximal ATA.

Three days after the 1st session,we determined to try to treat the crural artery disease because of insufficient clinical and hemodynamical improvement.

Since CTOs in both distal ATA and PTA were angiographically absent, we attempted to cross the CTO in the tibioperoneal trunk.

Immediately after failure of antegrade crossing,we employed transcollateral approach.

Given our discrete interpretation of angiographic findings,a developed collateral vessel from the proximal ATA to the peroneal artery appeared to be suited for this approach.

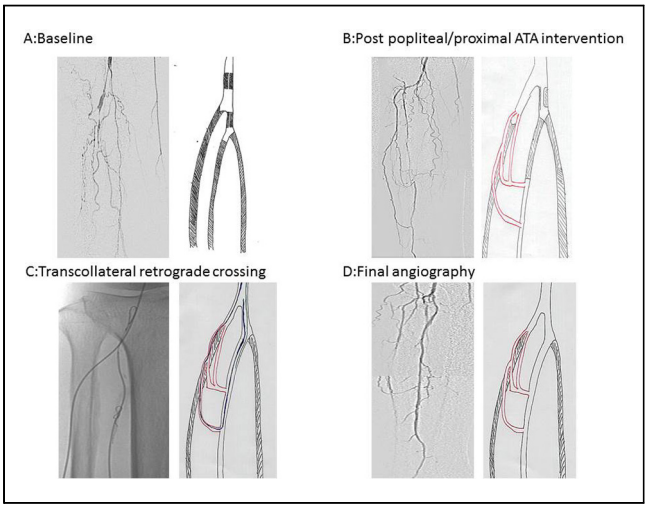
We advanced 0.014 inch hydrophilic guidewire through the collateral vessel to the peroneal artery with the assistance of microcatheter.

Subsequently, the CTO in the tibioperoneal trunk was retrogradely crossed and dilated with 1.5*20mm monorail balloon.

And then,we antegradely crossed the lesion with 0.014 inch guidewire and dilated the lesion with 2.0*80mm OTW balloon.

Final angiography clearly demonstrated the successful recanalization of the tibioperoneal trunk to the peroneal artery.

The SPP increased up to 61/56mmHg (dorsum/plantar) suggesting a likelihood of wound healing, the wound completely cured 4 months later although clinically-driven re-intervention was required.



Case Summary. In conclusion,the proximal ATA to the peroneal artery is the important collateral vessels in the field of trans collateral vessels in the field of trans collateral intervention.

Any developed collateral circulations produced by intervention. Any developed collateral circulations produced by intervention might be considered for contemporary trans collateral approach.

TCTAP C-189

Successful Endovascular Treatment for Type 2 Endoleak After Endovascular Abdominal Aortic Repair: Usefulness of N-Butyl Cyanoacrylate Embolization

Kiyonori Nanto,[1] Osamu Iida,[1] Shin Okamoto,[1] Takayuki Ishihara,[1] Tatsuya Shiraki,[1] Koji Yanaka,[1] Shota Okuno,[1] Masaaki Uematsu[1]
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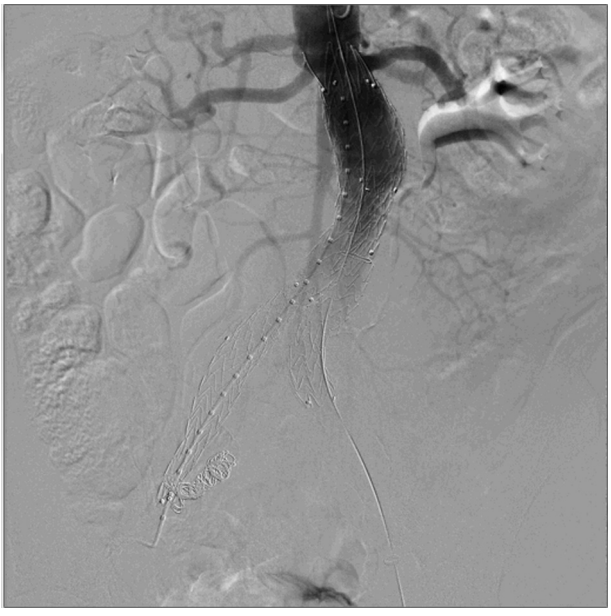
[CLINICAL INFORMATION]

Patient initials or identifier number. H.T

Relevant clinical history and physical exam. An 84-year-old man was admitted to undergo trans arterial coil embolization for type 2 endoleak with aneurismal sac expansion to 7 mm 14 months after EVAR using Endurant of acomputed tomography (CT) confirmed abdominal aortic aneurysm (AAA). Type 2 endoleak was demonstrated by contrast CT scan at 1 week post EVAR. Contrast CT scanning at 6 and 12 months post procedure showed persistent type 2 endoleak with little change in aneurismal size; hence, we opted for watchful waiting of the endoleak.

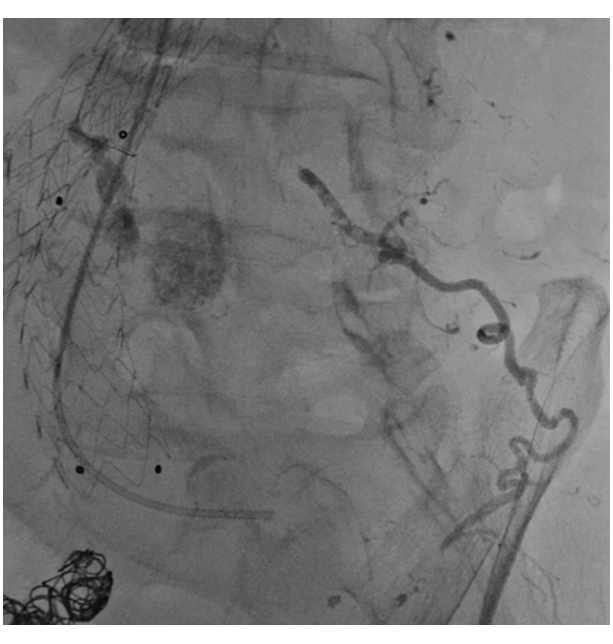


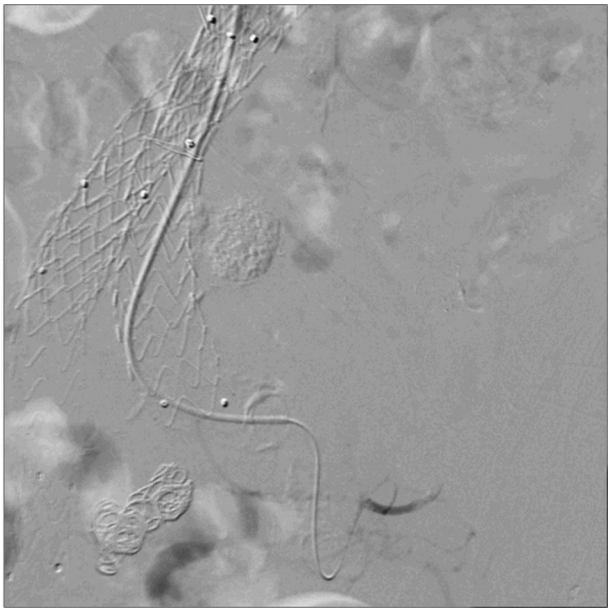
Relevant test results prior to catheterization. Follow-up contrast CT scan showed persistent type 2 endoleak. 3D-CT demonstrated that the type 2 endoleak originated from the left lateral sacral artery flowing into the lumbar artery.

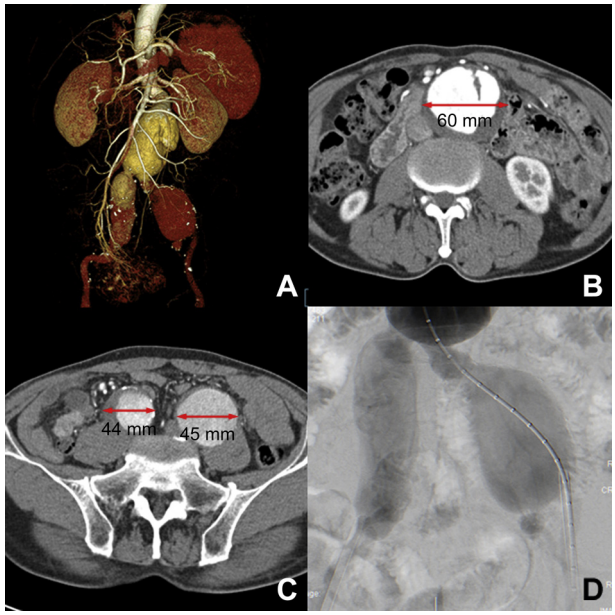
Relevant catheterization findings. His AAA was treated with EVAR using Endurant 14 months ago. Final angiogram revealed Type 2 endoleak.

[INTERVENTIONAL MANAGEMENT]

Procedural step. Endovascular therapy was performed via the right brachial artery under anesthesia. A 4.5 Fr guiding sheath was introduced into the left internal iliac artery. Angiography demonstrated enhancement of the aneurysm sac from the left lateral sacral artery flowing into the lumbar artery. We tried to cross a 0.014-inch soft wire accompanied with a microcatheter into the feeding artery to perform coil embolization, which was unsuccessful because of inability to deliver the wiredue to excessive vessel tortuosity. Therefore, 0.5 mL of N-butyl cyanoacrylate(NBCA) was injected with 1.5 mL of ethyl ester of iodinated poppy-seed oilfatty acid (LPD) into the mid segment of the left sacral artery; fluoroscopy revealed filling of the endoleak cavity from the sacral artery.







Case Summary. We performed endovascular treatment using NBCA-LPD for type 2 endoleak after EVAR without any complications. Embolization with NBCA by a transarterial approach for type2 endoleak appears technically feasible and clinically effective when coil embolization is difficult.

TCTAP C-190

Endovascular Repair of Abdominal Aortic Aneurysm Combined with Huge Bilateral Iliac Arterial Aneurysms with Custom-Made Branched Stent Graft

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[CLINICAL INFORMATION]

Patient initials or identifier number. 29337463

Relevant clinical history and physical exam. A 73-year-old man came to our hospital for evaluation of pulsatile abdominal mass. He was a smoker but denied history of hypertension or diabetes mellitus. Two years ago, he underwent stenting at left anterior descending artery for myocardial infarction. Afterward, he has been doing well.

Relevant test results prior to catheterization. Computed tomography showed fusiform aneurysmal dilatation in infra-renal abdominal aorta (60 mm in maximal diameter) and both iliac arteries (Fig. 1A-C). The size of right and left CIA was 45 mm, 44 mm in maximal diameter, respectively. Because AAA was combined with huge both CIA aneurysm, we decided to perform EVAR with branched iliac bifurcated stent graft than other techniques such as the bell bottom, snorkel or extra-anatomic bypass procedures.

[INTERVENTIONAL MANAGEMENT]

Procedural step. Initially, a custom-made 15-Fr delivery left internal iliac branched device (IIBD, SEAL Bifurcated stent graft, 12 x 100 mm, S&G Biotech, Seoul, Korea) was introduced in left femoral artery (FA) under fluoroscopic guidance. Afterward, a 0.035-inch guidewire was inserted through the branched limb under fluoroscopic guidance from the right FA. Prior to implantation of internal iliac stent graft (IISG, SEAL Branched limb extension, 12 x 80 mm, S&G biotech, Seoul, Korea), side branches of left internal iliac artery (IIA) was embolized by coil (Tornado® Embolization Coil, 5 x 2 mm, 6 x 2 mm, COOK Medical, Bloomington, IN). Through a stiff guidewire, an 8-Fr internal iliac stent graft was deployed in the left IIA. With the same technique, a custom-made 15-Fr delivery right IIBD was then placed from the right FA and IISG from the left FA. Afterward, conventional EVAR was performed in AAA. The final aortography showed abdominal aortic and both iliac arterial aneurysms were successfully excluded without any endoleak (Fig. 2A). Procedure time was 310 minutes and dose of contrast dye was 350 ml. Follow-up computed tomography after 1 week showed good patency in all stent grafts without evidence of endoleak (Fig. 2B-D). The patient was discharged without complications.