Case Summary. In severely calcified AVF with aneurysmal change, it is difficult to recanalize and perform endovascular balloon angioplasty, especially when the AVF becomes totally occluded. Multiple techniques evolved in percutaneous coronary intervention and peripheral angioplasty is often combined to yield a good result. This allowed the patient presented with a totally occluded AV fistula to recover the function of the hemodialysis access. When performed in experienced hands, endovascular approach provided similar efficacy of longterm patency rate with a shorter procedure time.

TCTAP C-170
Successful PTA with Graft Stent for Left Innominate Vein Stenosis Which Is Compressed by Brachiocephalic Trunk Under IVUS Assistance
Chungho Hsu
1China Medical University Hospital, Taiwan

[CLINICAL INFORMATION]
Patient initials or identifier number. HLAZ

Relevant clinical history and physical exam. A 74 year-old lady with a history of uremia under regular hemodialysis suffered from repeated left arm and face swelling. Left brachio-cephalic AV loop bypass was created for hemodialysis and recurrent left arm swelling was noted after creation of AV bypass. Fistulography showed stenosis of left innominate vein and axillary vein with repeated PTA performed. A 14.0 x 90 mm Wall stent was placed over left innominate vein but in vain.

Relevant test results prior to catheterization. Chest X ray: migration of Wall stent was noted
Chest CT: left innominate vein stenosis caused by compression of the brachiocephalic trunk

Relevant catheterization findings. A 6 Fr sheath was inserted to graft and left innominate vein stenosis with pressure gradient 60 mmHg was noted. Migration of Wall stent to left subclavian vein was noted.

[INTERVENTIONAL MANAGEMENT]
Procedural step. A 8Fr sheath was inserted to left brachio-cephalic AV loop bypass graft and a 12 Fr sheath was inserted to right common femoral vein. Left innominate vein was crossed with a.035" Roadrunner wire via arm and was trapped by a 15 mm Snare via right common femoral vein and externalization of the wire was performed. IVUS showed dynamic compression of left innominate vein by brachiocephalic trunk. The lesion was dilated with a 14.0/40 mm Wanda balloon at 10 atm and stented with a 13.0/50 mm Viabahn graft stent. Dynamic compression of the stent was noted by IVUS without pressure gradient found. Arm swelling and face swelling resolved after procedure.

Case Summary. Viabahn graft stent can be used safely for innominate vein stenosis compressed by brachiocephalic trunk. It also carries smaller risk for stent migration than Wall stent. IVUS evaluation is mandatory during the procedure.

TCTAP C-171
Successful Angioplasty for Subclavian Artery Occlusion with Bilateral Approach
Mu-shiang Huang,1 Cheng-Han Li1
1National Cheng Kung University Hospital, Taiwan

[CLINICAL INFORMATION]
Patient initials or identifier number. 00802947

Relevant clinical history and physical exam. 83 years old male Past history: Myocardial infarction history underwent coronary intervention in 2013/12, CAD/2-V-D, LAD+RCA underwent stenting at that time and incidentally found left subclavian artery critical stenosis Dyslipidemia
Chief complain: Dizziness occasionally
Physical examination: Bilateral radial pulse difference No other remarkable abnormalities

[Previous Angiography]
Showed left subclavian artery critical stenosis
Relevant catheterization findings. [Diagnostic angiography]
Left subclavian artery critical stenosis near orifice

[INTERVENTIONAL MANAGEMENT]
Procedural step. [Strategy]
Try antegrade approach via femoral artery first (Guiding: JR4 to, wire: V-18 wire)
If failed, add on retrograde approach via left femoral artery
[Procedure steps]
1. JR4 guiding catheter difficult to engage, so we used JB2 instead
2. Wiring via antegrade failed. The tortuosity was beyond we thought.
3. Add on retrograde approach via brachial artery with V-18 wire, but still failed wiring.
4. Bilateral approach and antegrade wiring with 0.014 wire for better torquability. It successfully passed and went into left brachial guiding catheter.

5. 2.5mm balloon to anchor the wire and we tried to pass a coronary 2.5mm balloon, but it failed and the wire dropped out after patient take a deep breath.

6. Restarted over again, we wired via brachial in retrograde with 0.014 wire and a CTO-wire Approach 25g. Finally we passed again.

7. 2.5mm balloon to dilate stenotic part, and then we intended to change 0.035 wire for better support. The guiding catheter successfully went over aorta after balloon dilatation. We changed to 0.035 wire then.

8. Because of balloon and stent profile, 7.0mm balloon to dilate lesion and deployed a 8.0mm/37mm stent without guiding catheter. Localization of balloon/stent by injected contrast via JB2 catheter from antegrade.

9. 7.0mm balloon to do post-dilatation, and then procedure ended.

Total procedure time: 4 hours, Contrast exposure: 100ml

Case Summary. In subclavian artery intervention, sometimes the pathway tortuously is beyond we thought. 0.014 wire might help in such circumstance, better torquability, but need careful exam if support enough. And bilateral approach in subclavian artery intervention is crucial.

TCTAP C-231
A 83 Year-Old Female with Progressive Dyspnea for One Week
Wei Chieh Huang
Taipei Veterans General hospital, Taiwan

[CLINICAL INFORMATION]
Patient initials or identifier number. 33092147

Relevant clinical history and physical exam. Progressive dyspnea has been noted since one week ago. The patient’s general performance had been relatively fair prior to admission. Sudden onset of shortness of breath after going to bathroom early this morning, then she was brought to our ER, where initial vital signs revealed systolic blood pressure 168mmHg and diastolic blood pressure 88mmHg. CXR showed acute pulmonary edema

Relevant test results prior to catheterization. After series of examination lab data showed impaired renal function (Creatinine 2.36 mg/dl), normal level of cardiac enzyme and NT-pro BNP 8894 pg/dl. Bedside heart echo showed LVEF 40%.

Relevant catheterization findings. CAG via RRA showed CAD with TVD (LM: patent; LAD: diffuse lesion with up to 50% stenosis; LCX-M to D: tandem lesion, up to 90% stenosis; RCA-P: 80% stenosis) LVG showed mild LV systolic dysfunction with LVEF 45%. We deployed BMS at RCA and LCX-D.AOG showed irregular lumen and renal artery stenosis.