

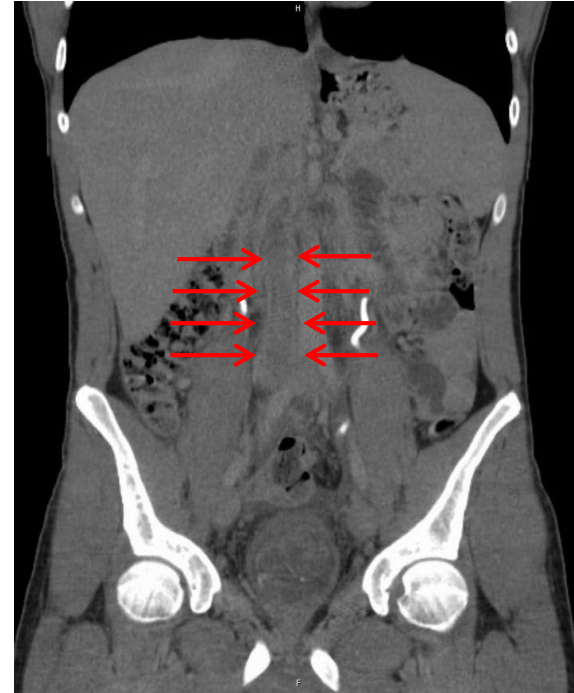


MY WORST VENOUS COMPLICATION

Daniela Branzan, MD
Head of Vascular Surgical Department
University Hospital Leipzig

- ☞ 18-year-old man
- ☞ back pain
- ☞ worsening painful swelling in his both legs, severely limiting his mobility within the last 3 weeks
- ☞ no shortness of breath, cough or chest pain
- ☞ afebrile and HD stable
- ☞ past medical history unremarkable
- ☞ no familial history for venous thromboembolism

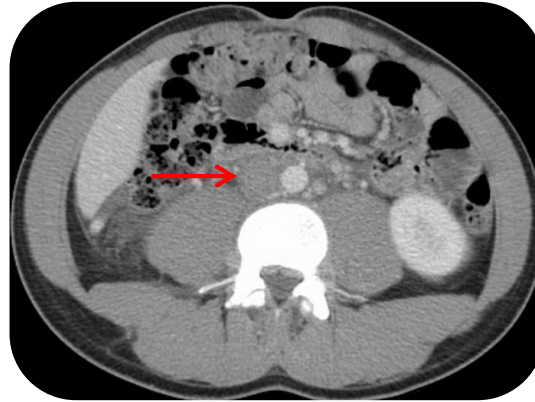
- Duplex-US of the lower limbs: extensive clot, with complete occlusion of the external iliac vein, and common, deep, and superficial femoral veins
- CT pulmonary angiogram excluded pulmonary embolism (PE)
- CTA scan of the abdomen: extensive thrombosis of the IVC



CT scan of the abdomen

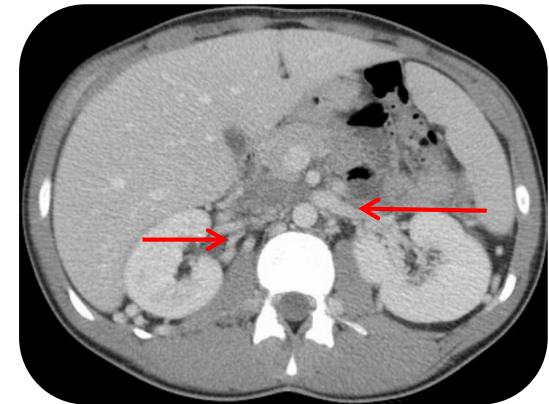


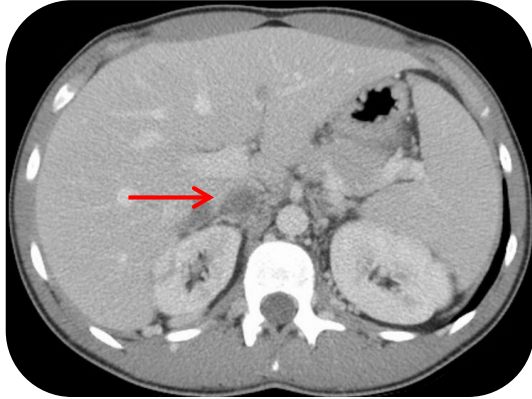
Thrombosis of the CIV,
EIV on both sides



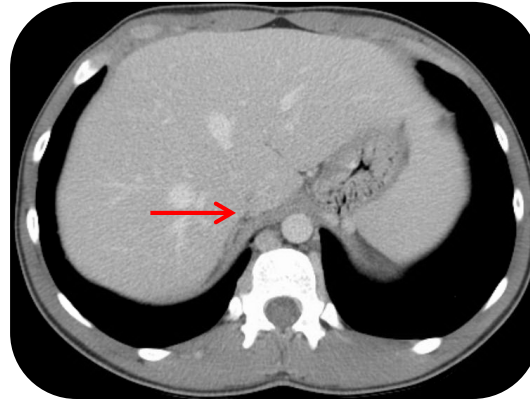
Infrarenal IVC extensively
thrombosed

Patent renal veins



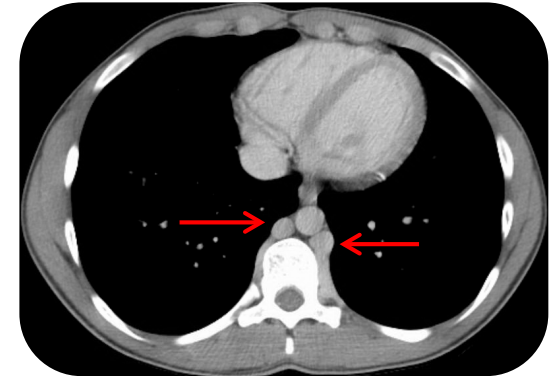


Intrahepatic IVC
thrombosed



marked hypoplasia of
the intrahepatic tract of
the IVC

Venous drainage from
the inferior part of the
body accomplished by a
dilated azygos and
paravertebral veins



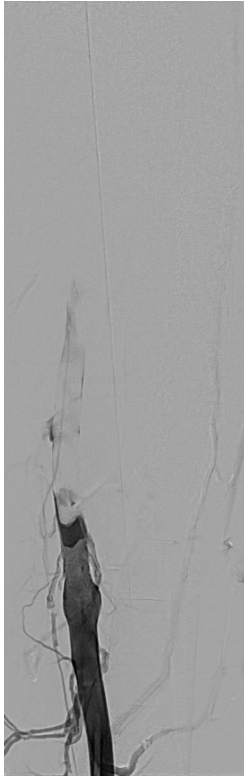
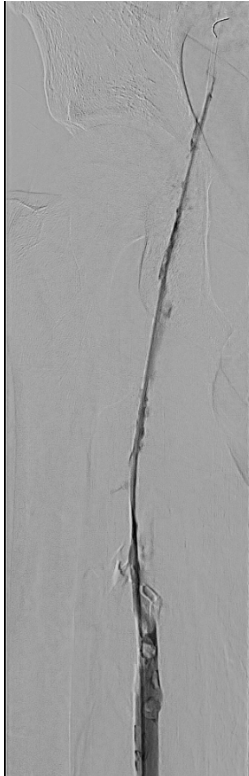
Subacute IVC Thrombosis

Treatment Modalities:

- Anticoagulation alone-> disabling PTS
- CDT
- Phamaco-mechanical catheter directed thrombolysis
- PTA and Stenting

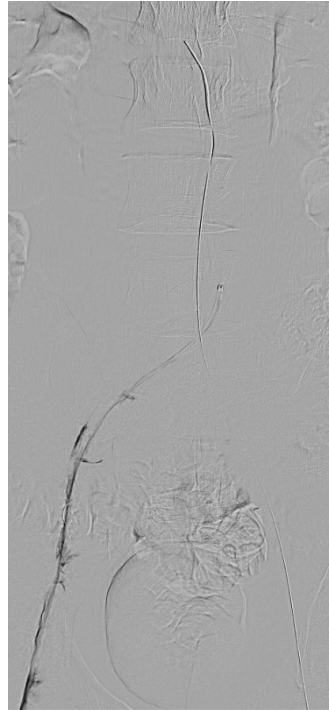
Intervention # 1

Mechanical Thrombus Removal (10,5 Fr. Aspirex, Straub Medical AG)



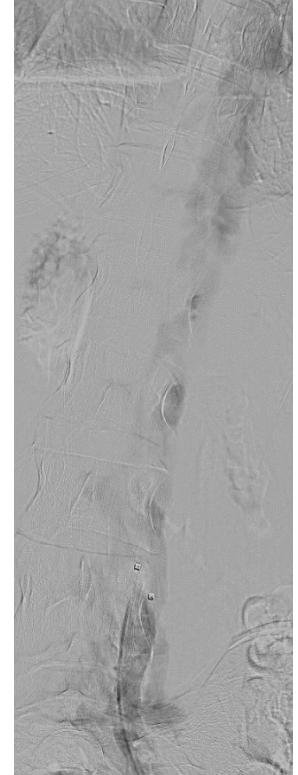
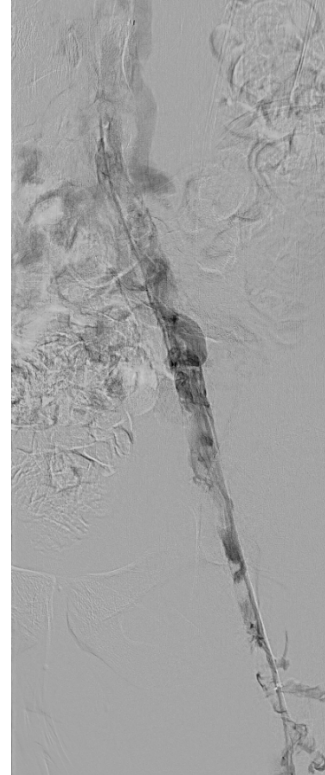
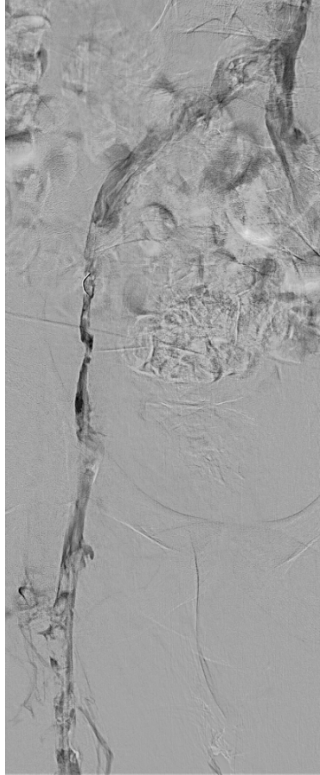
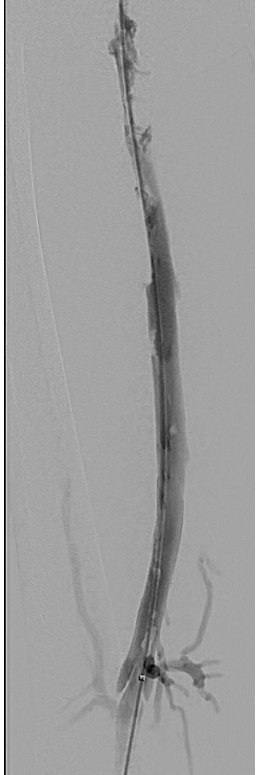
Cragg-McNamara (Medtronic, Minn, USA) infusion catheters inserted through each popliteal vein

- Alteplase (10 mg mixed in 1,000 ml of 0.9% NaCl), infused at a rate of 0.01 mg/kg/h

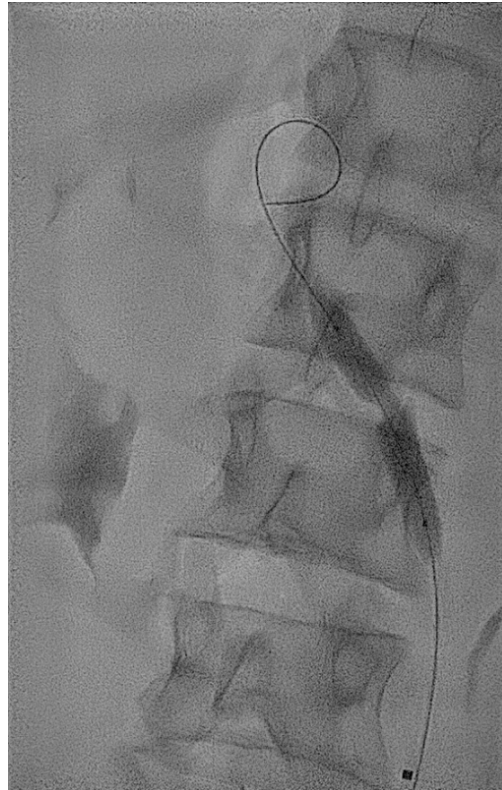


Intervention #2: 24 h later

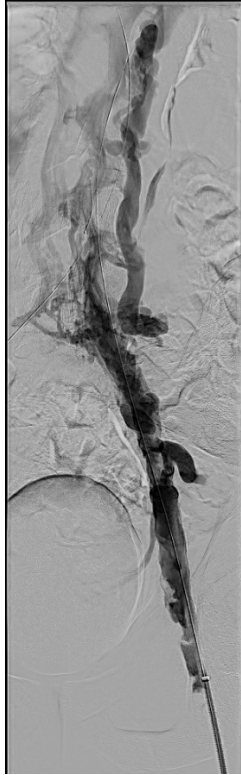
Mechanical Thrombus Removal (10,5 Fr. Aspirex)



PTA of a suprarenal collateral



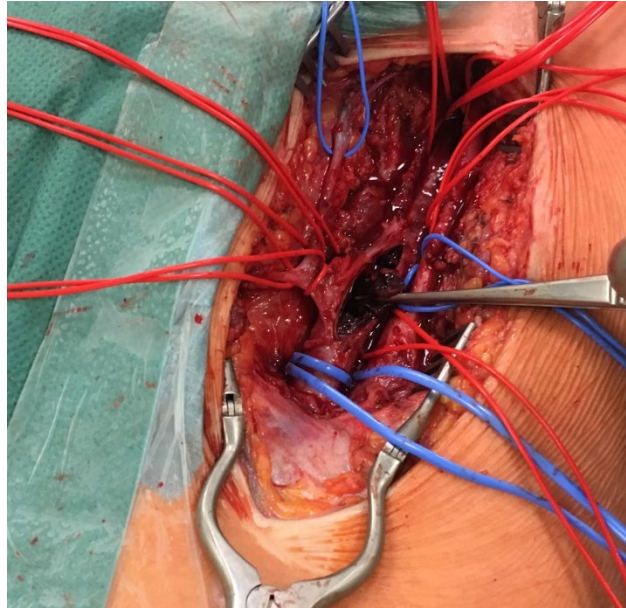
Significant residual stenosis (due to the chronicity of the thrombosis of CIV&IVC) Good flow in the Azygos system



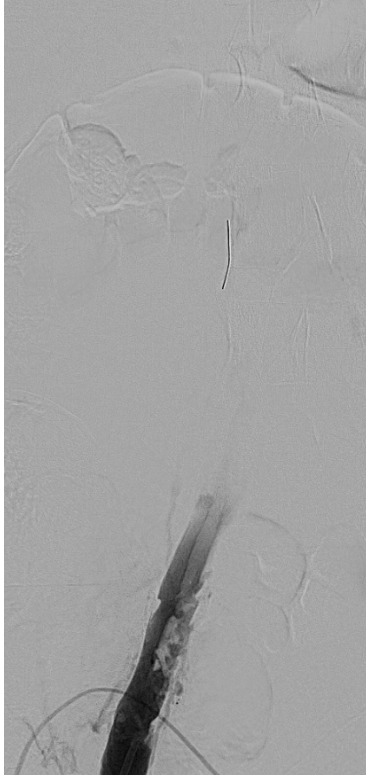
3 Days later

- Symptomatic Re-Occlusion of IVC, iliac Veins, CFV, VF on both sides despite:
 - anticoagulation with UFH and
 - graduated compression stockings.

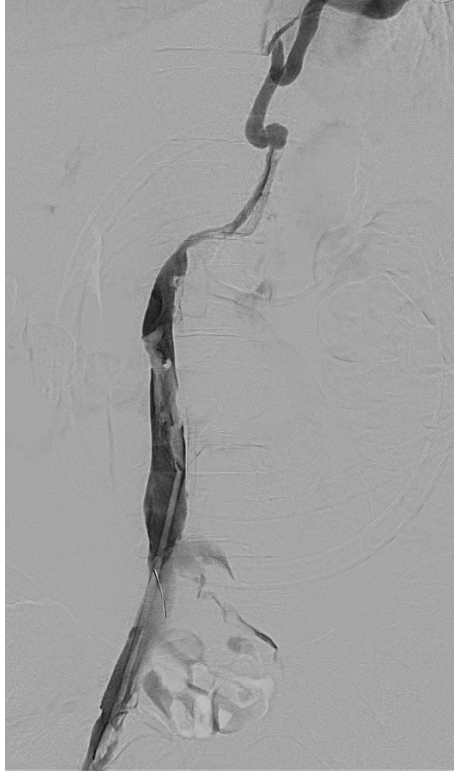
Intervention # 3: 4 Days later



- ☛ Femoral venotomy and surgical thrombectomy on both sides: ***combination of acute soft thrombus and a chronic fibrotic thrombus***

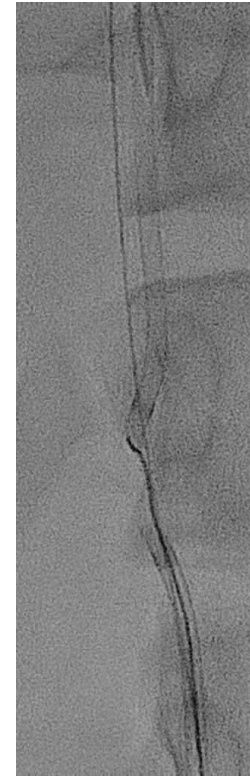
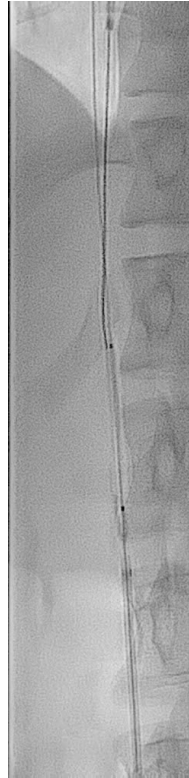
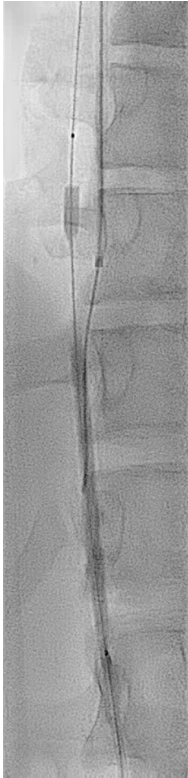


IVC and CIV Flow after Thrombectomy

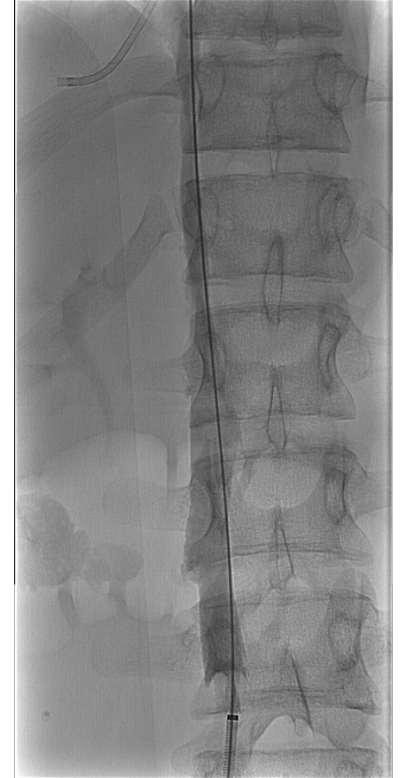


CART of IVC Occlusion via IJV and CFV

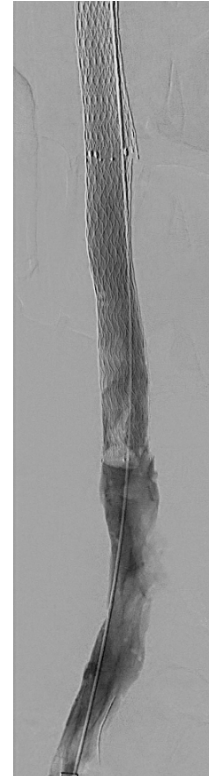
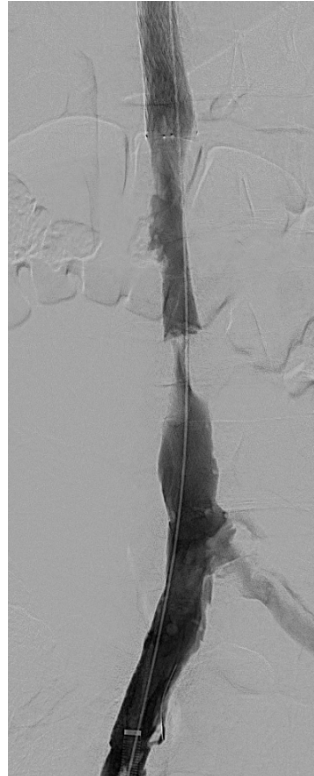
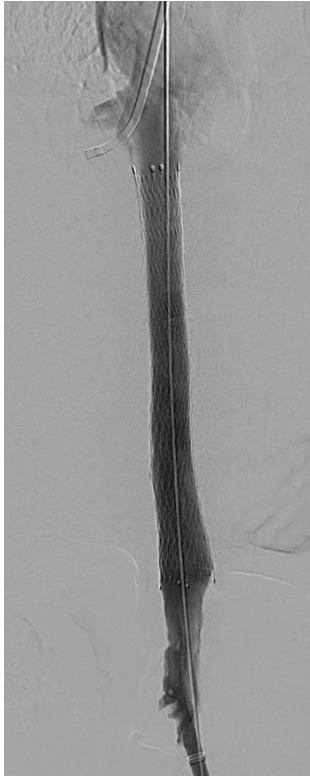
Establish a through-and-through wire



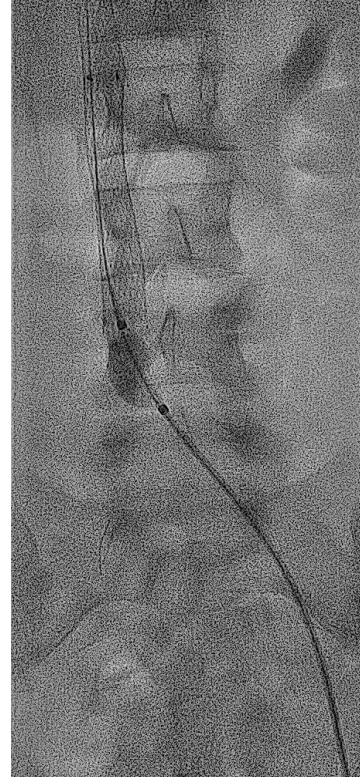
High Pressure PTA of the IVC Occlusion (Conquest® 40 - Bard PV)

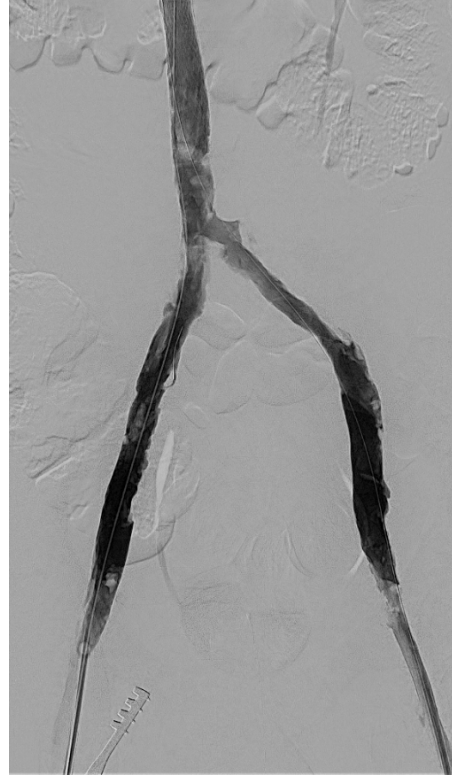
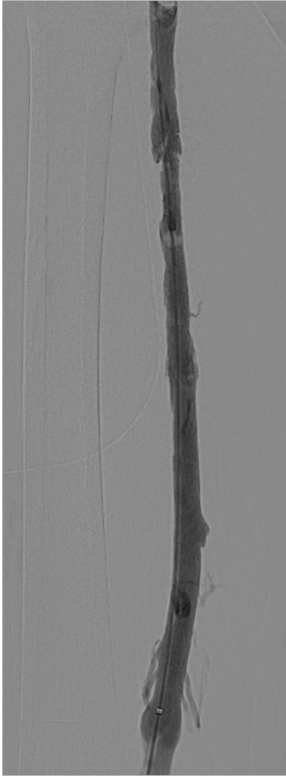


Sinus XL 22/100, 22/80mm (Optimed)



Surgical Thrombectomy of left CIV





Discharge

- ☞ Graduated compression stockings
- ☞ Ass 100mg/die lifelong,
- ☞ Clopidogrel 75mg/die for 1 month,
- ☞ DOAK

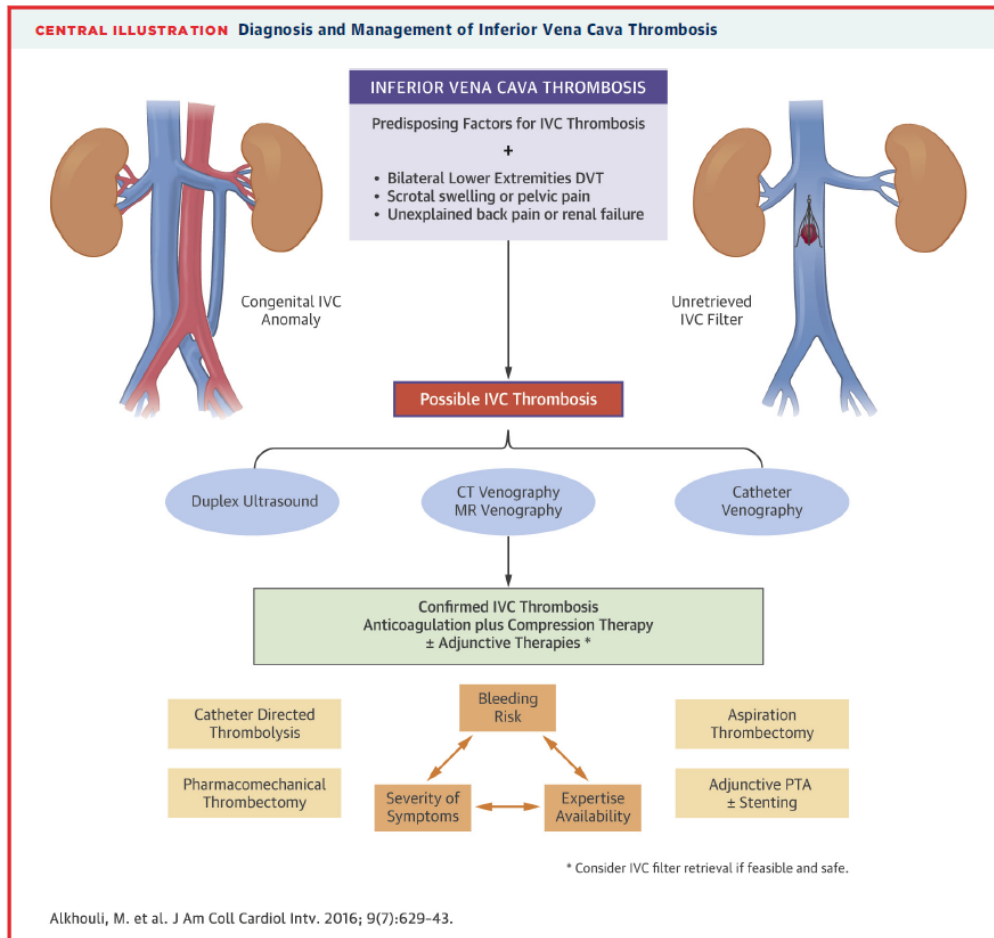
- ☞ Collateral veins on the left side of the abdomen
- ☞ Small varicose veins on the calf
- ☞ Discrete edema BTK
- ☞ Plays Volleyball regularly





Things we might have considered to improve Patency

- ☞ Stenting across the ilio caval bifurcation?
- ☞ IVUS?
- ☞ AV-Fistula at the groin?
- ☞ Inferior vena cava thrombectomy?



Thank you!



Daniela.Branzan@medizin.uni-leipzig.de