

My Worst Venous Complication

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Disclosure

I do not have any potential conflict of interest.



Clinical Findings

- 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



Clinical Findings

- no familial history for venous thromboembolism
- US: extensive clot, with complete occlusion of the external iliac vein, and common, deep and superficial femoral veins
- CT pulmonary angiogram excluded pulmonary embolism (PE).



CT scan of the abdomen (coronal view)



extensive thrombosis of the IVC



CT scan of the abdomen



Thrombosis of the CIV, EIV on both sides

Infrarenal IVC extensively thrombosed

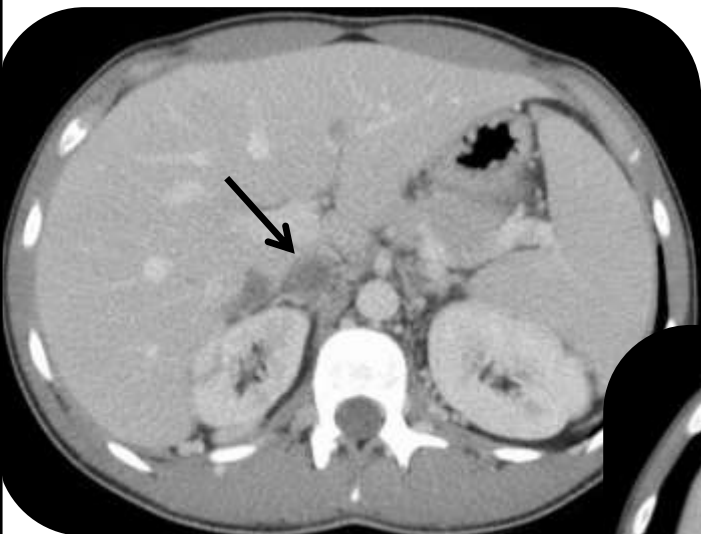


Patent renal veins

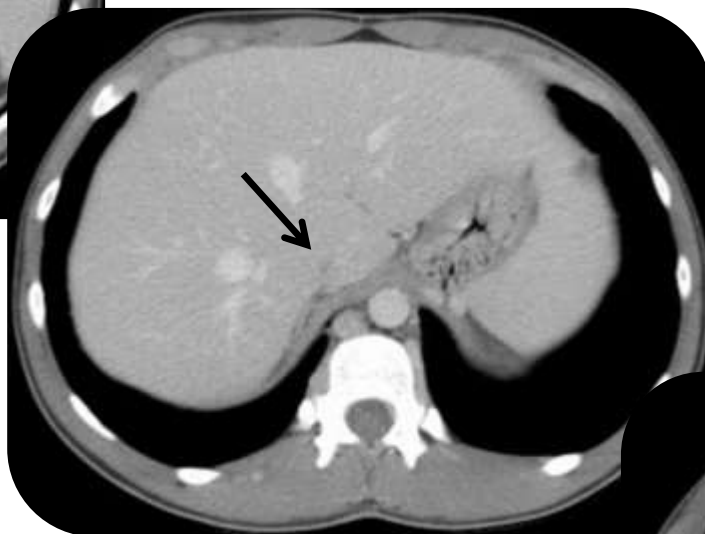




CT scan of the abdomen

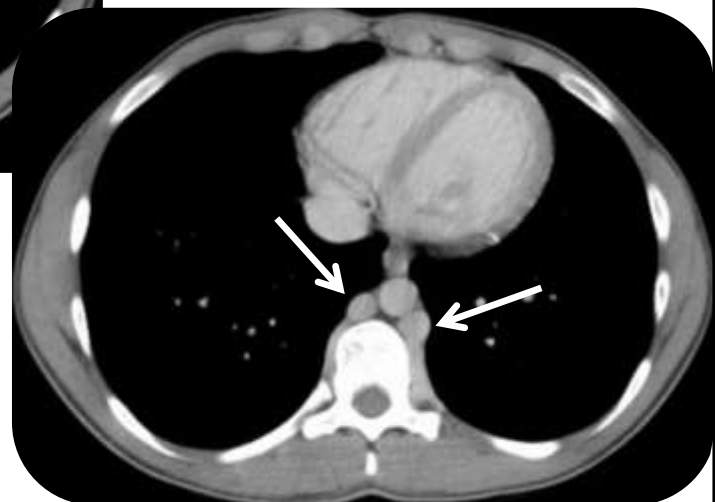


Intrahepatic IVC thrombosed



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

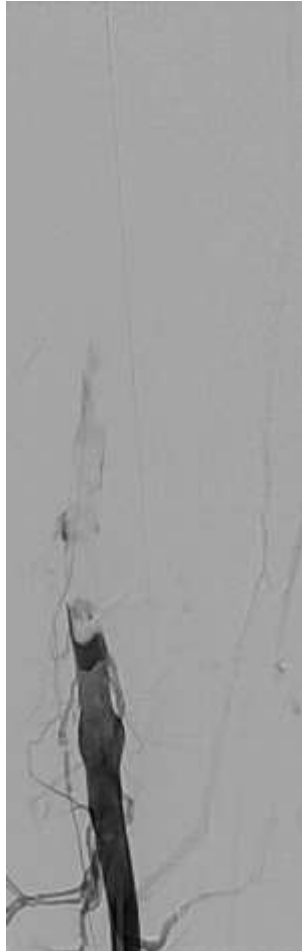
Treatment Modalities

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



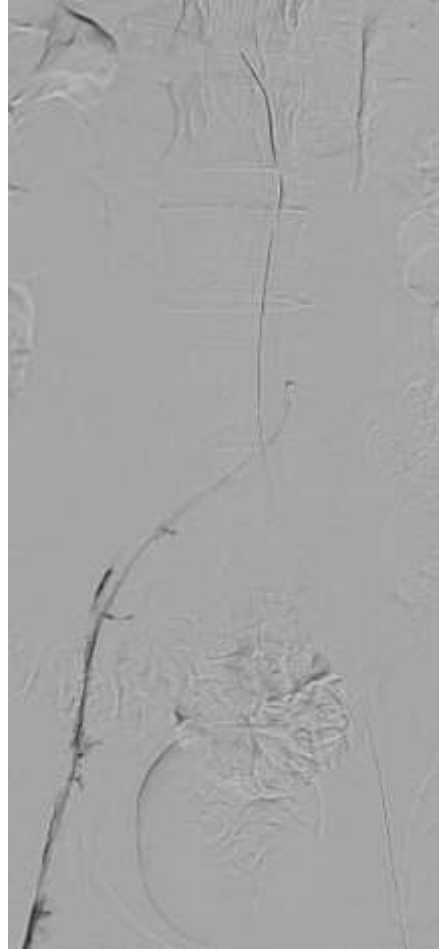
Intervention # 1

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





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

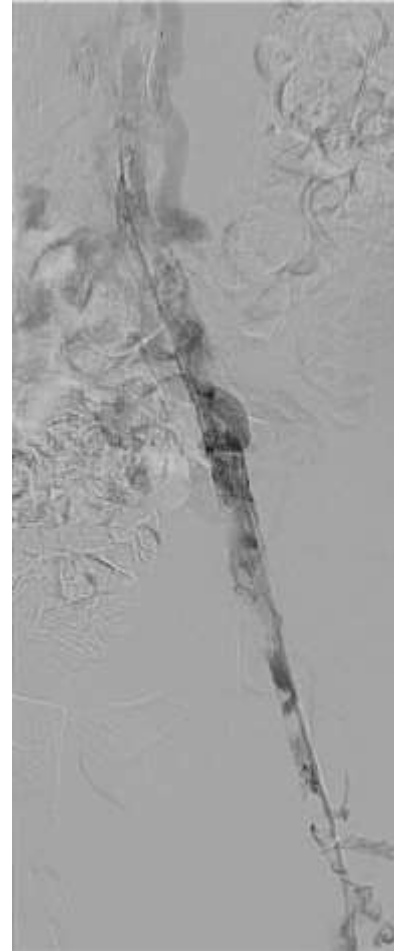
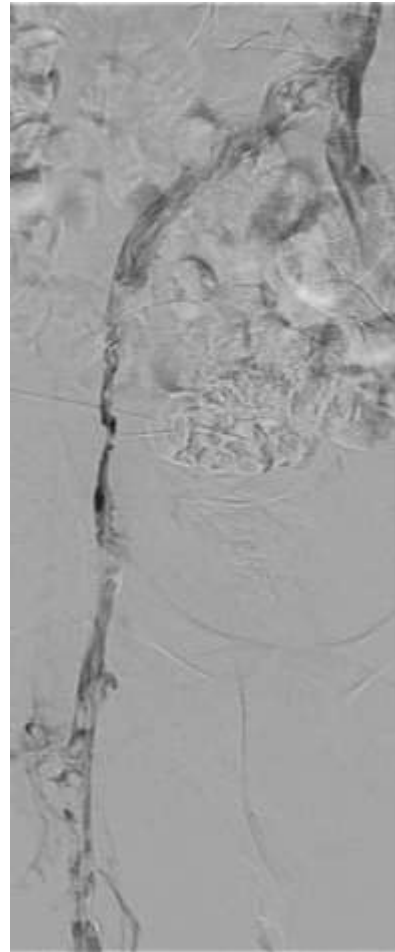
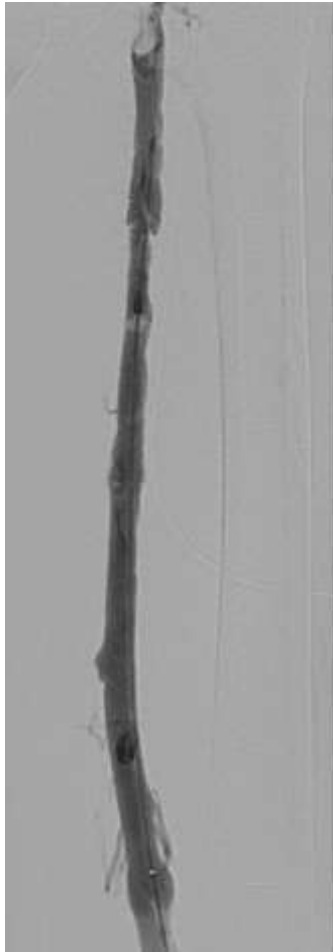


Alteplase (10 mg mixed in 1,000 ml of 0.9% NaCl), infused at a rate of 0.01 mg/kg/h

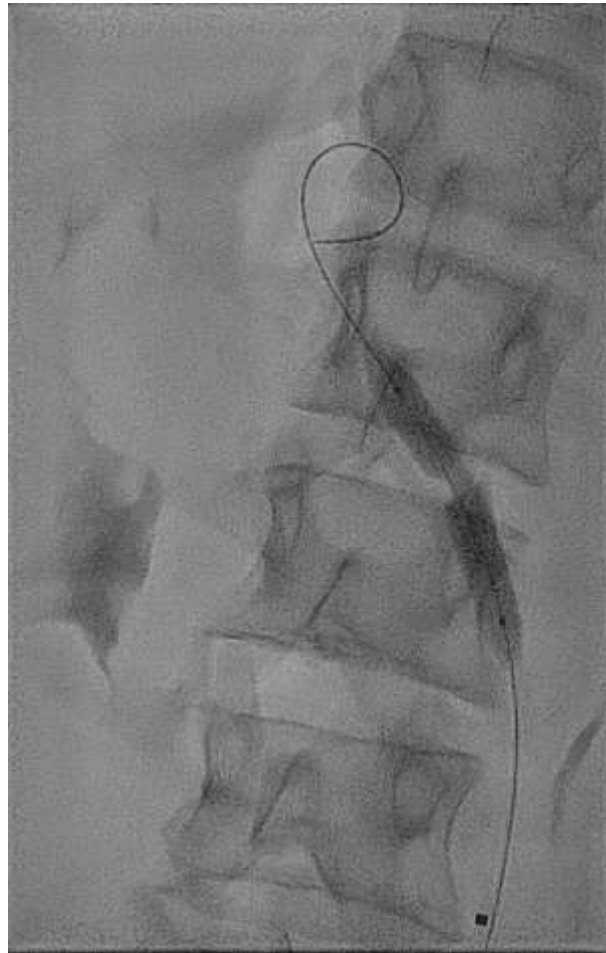


Intervention # 2: 24 h later

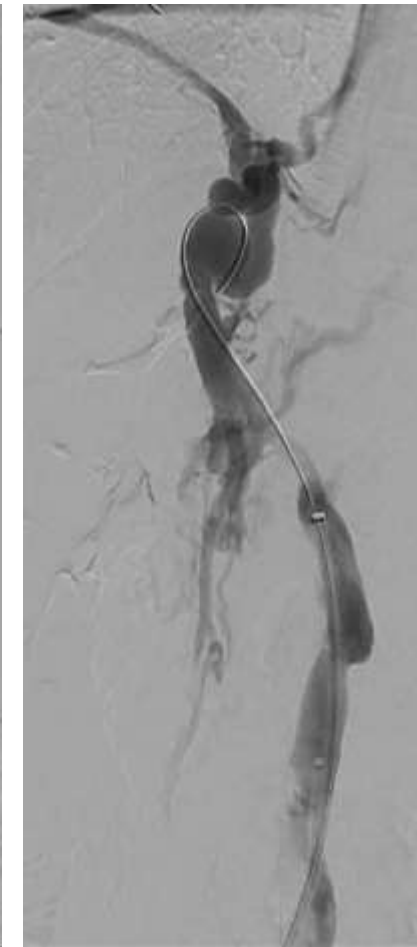
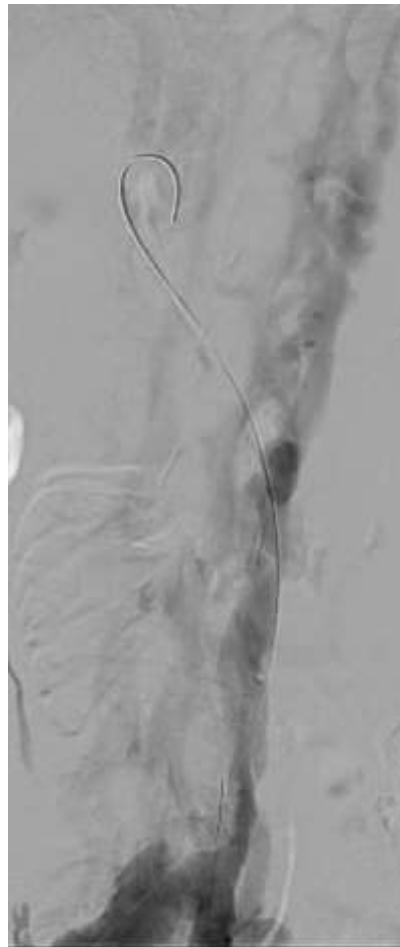
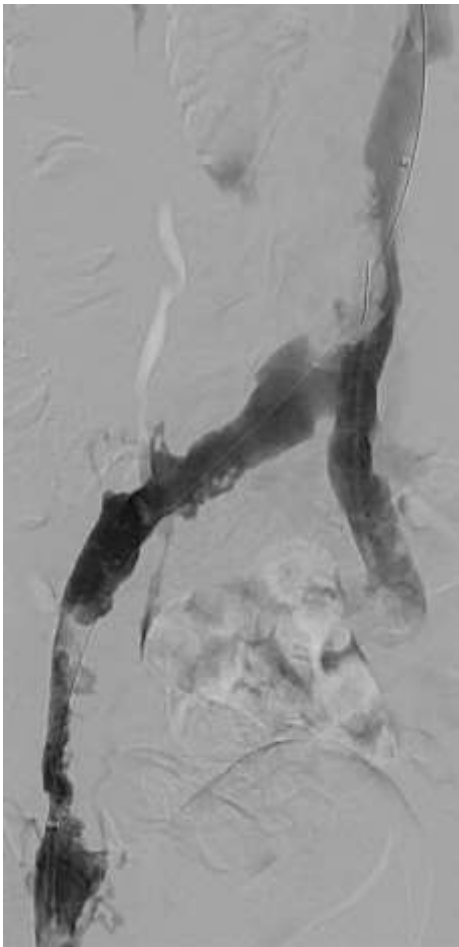
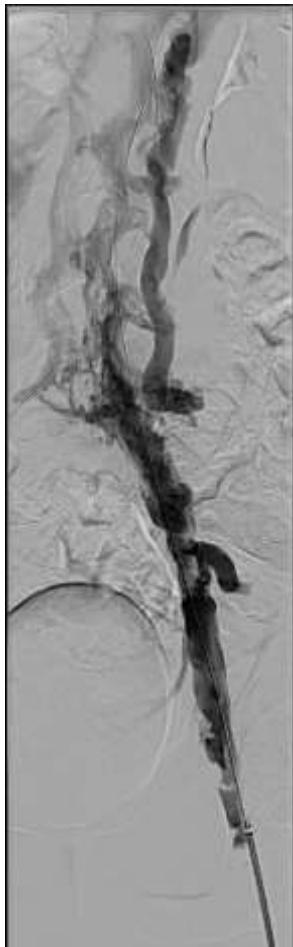
Mechanical Thrombus Removal (10,5 Fr. Aspirex)



PTA of a suprarenal collateral



Significant residual stenosis due to the chronicity of the thrombosis of CIV&IVC Good Flow in the Azygos System





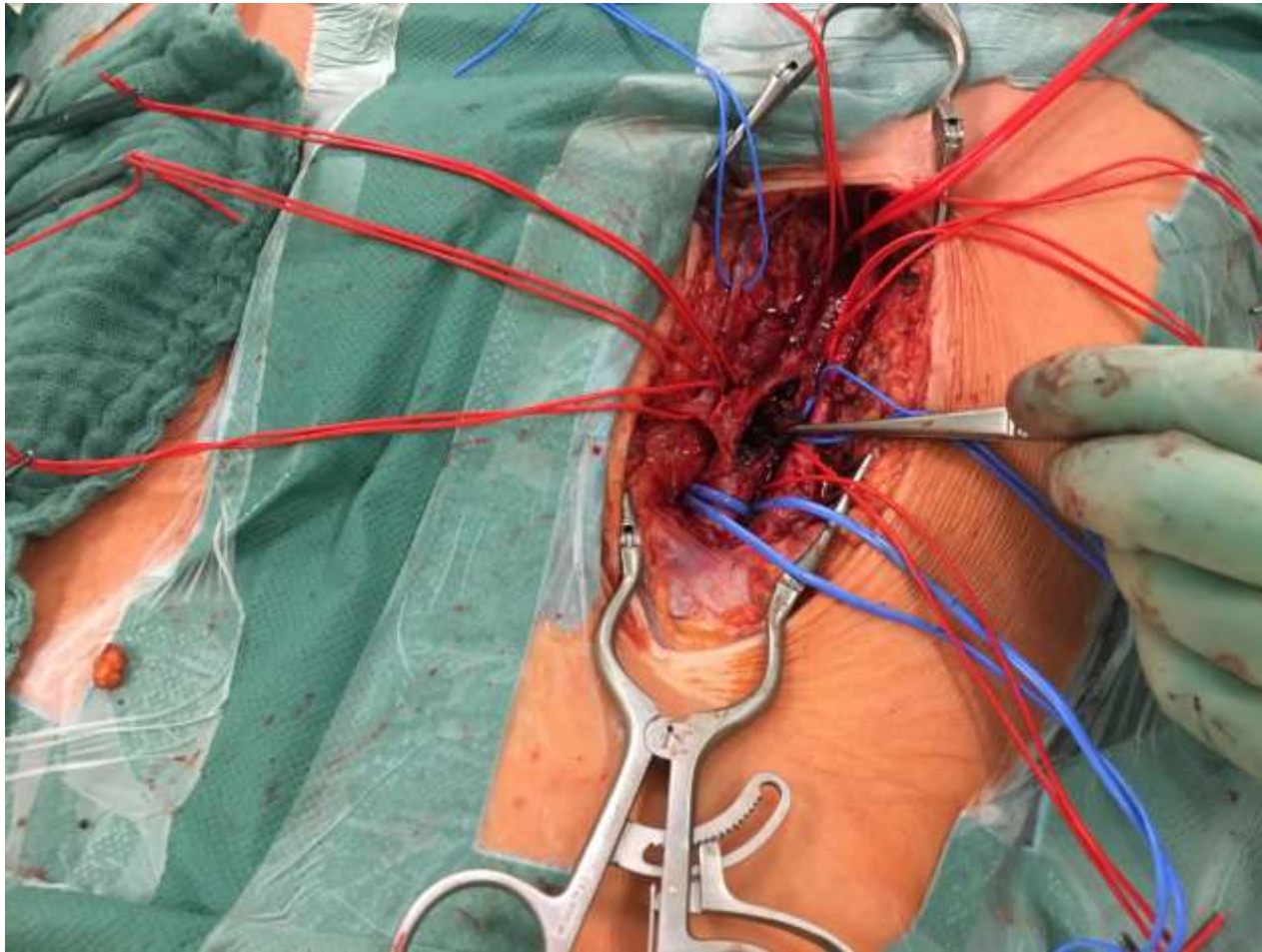
3 Days later

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



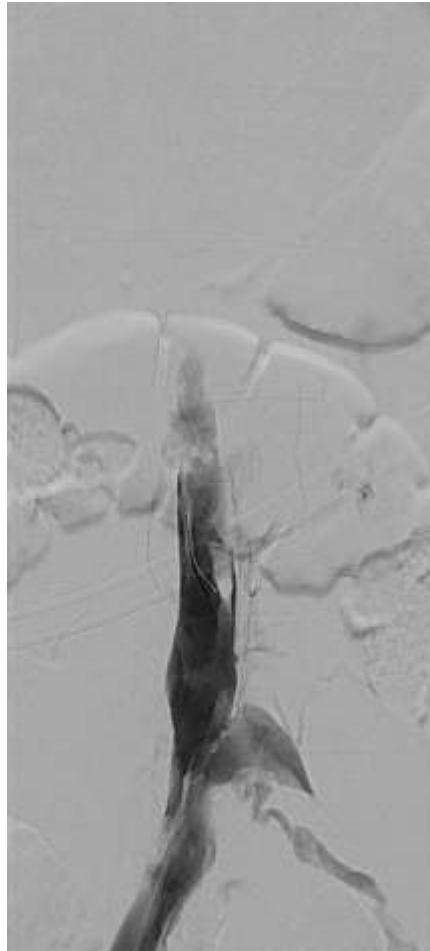
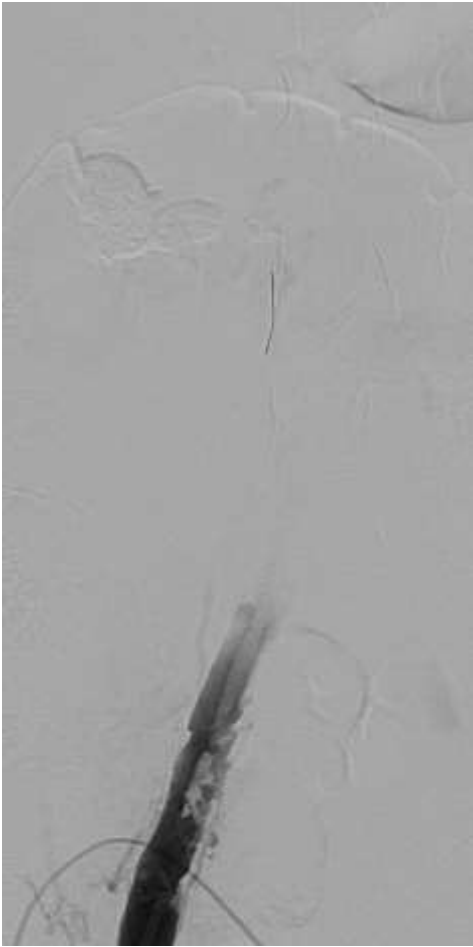
Intervention # 3: 4 Days later

Iliofemoral Thrombectomy



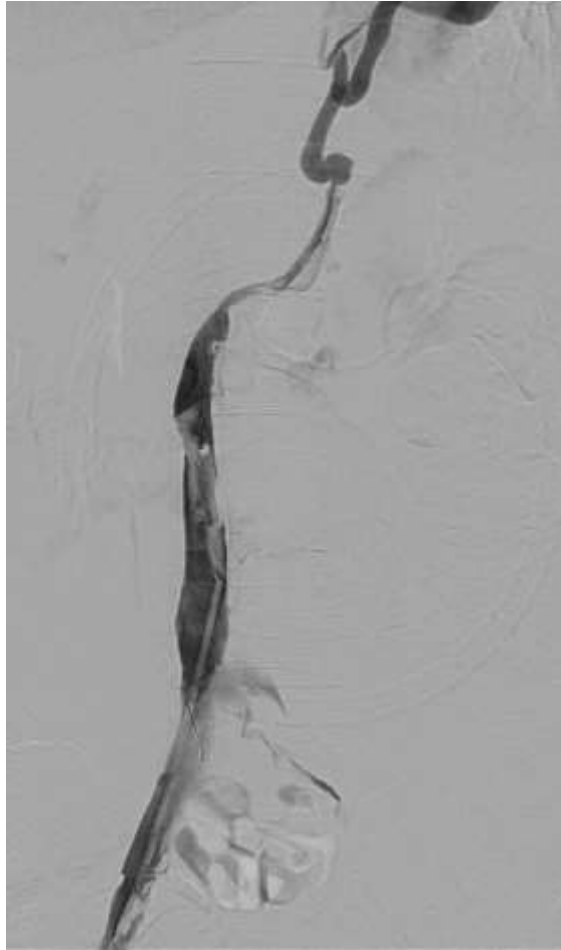
Femoral venotomy and surgical thrombectomy: ***combination of acute soft thrombus and a chronic fibrotic thrombus***

Surgical Thrombectomy





IVC and CIV Flow after Thrombectomy





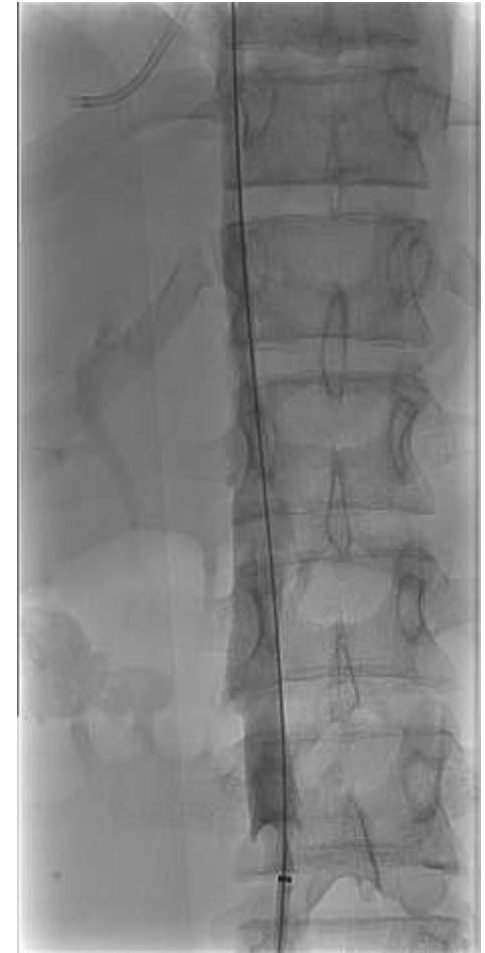
CART of IVC Occlusion via IJV and CFV

Establish a through-and-through wire



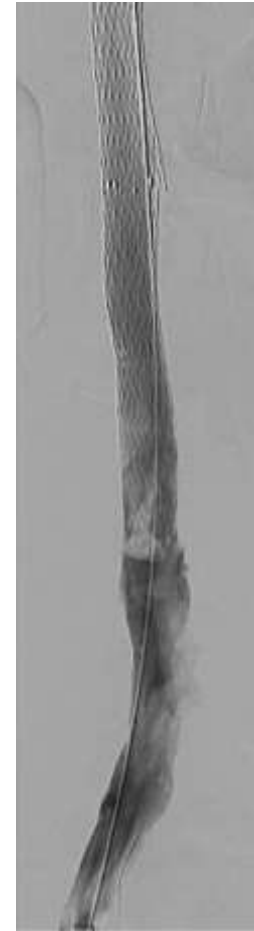
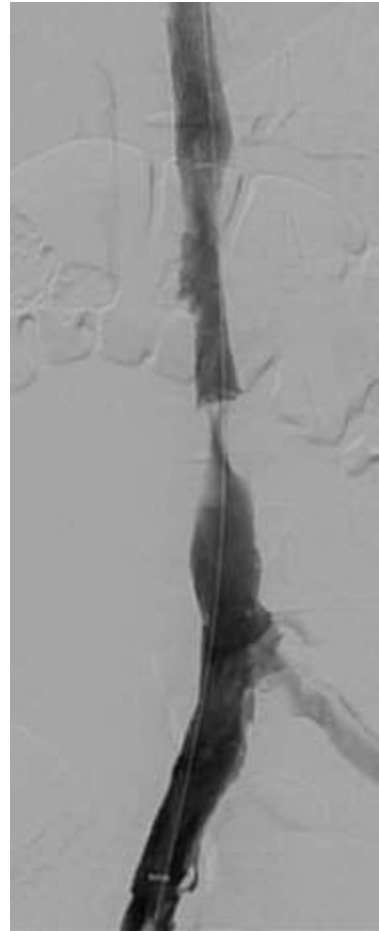
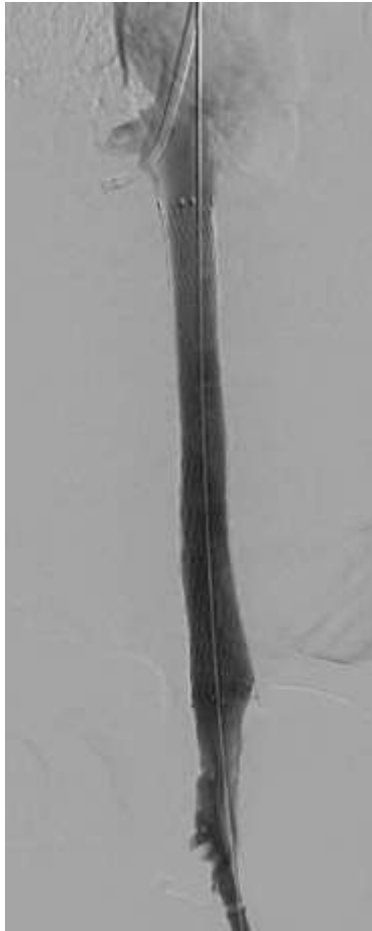


High Pressure PTA of the IVC Occlusion (Conquest[®] 40 - Bard PV)





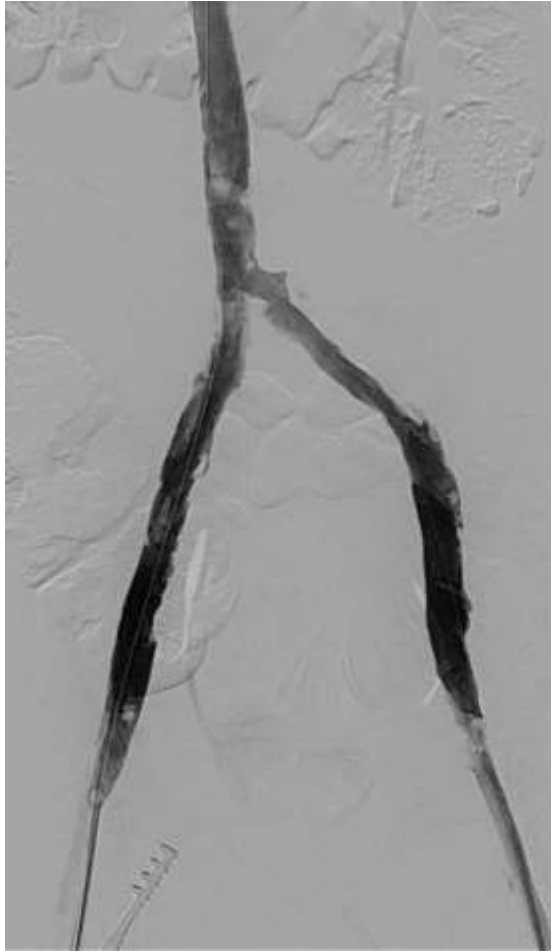
Sinus XL 22/100, 22/80mm (Optimed)



Surgical Thrombectomy of left CIV



Final Phlebography





Discharge

- Graduated compression stockings
- Ass 100mg/die, Clopidogrel 75mg/die for 1 month, NOAK



FU@4 Mo

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

Phlebography@4 Mo





Phlebography@4 Mo





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!



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