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

Infrarenal IVC extensively thrombosed

Thrombosis of the CIV, EIV on both sides

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
• Pharmacomechanical 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 iliocaval bifurcation?
- IVUS?
- AV-Fistula at the groin?
- Inferior vena cava thrombectomy?
Thank you!

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