Recanalization of the Inferior Vena Cava Techniques and Results

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Disclosures

- No personal disclosures
- IVC Stent Use is currently off label

Chronic IVC Occlusion

- Can be surprisingly easy despite disease extent or duration of occlusion!
- Access – Femoral vein access mid thigh – Alternatives: IJ, GSV, popliteal
- Venogram

Can have great technical results!

Access and Imaging

- Transverse trabeculated veins – no subintimal plane
- Standard glidewire/glidecatheter – probing motions
**Recanalization**

- Perforations self-limiting
  - No need to abort
  - Withdraw & reattempt

**Balloon Dilation**

- IVUS determination of proximal and distal disease extent: Venography misleading!!
- Pre-dilate with large non-compliant balloons (18-20 mm)

**IVC Filters**

- Balloon Crush and Stent

**Stenting**

- Metal load is not thrombogenic: Under-stenting is!
  - Need adequate inflow and outflow!
  - Distal: Ok to cross inguinal ligament
  - Proximal: Ok to atrium, can cross renal & hepatic veins

**Stenting**

- Z-stents across branch points
- Use large stents
  - IVC: 22-24mm
  - Iliac: 16-20mm
- Overlap 3 - 4 cm

**Results**

- IVC CTO Recanalization n=36
  - 25 IVCF stented across – all filter type except Mobin-Uden Umbrella (implant 4m – 20 yrs)
  - No mortality
  - No major sequelae: No pulmonary emboli, No caval tears, no major bleeding
Results

Cumulative patency 94% at 4.5 years, stented filters 75% at 4.5 yrs

Cumulative partial & complete relief of pain at 4.5 yrs: 82% & 79%

Cumulative partial & complete relief of swelling at 4.5 yrs: 89% & 55%

Conclusions

- Consider intervention
- Technical challenges can be navigated
- Excellent Mid-term patency and symptom relief

Happy Patients!