Technical Aspects of Venous Interventions for Chronic DVT

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Disclosure

Speaker name:

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I have the following potential conflicts of interest to report:

- [ ] Consulting:
- [ ] Employment in industry
- [ ] Stockholder of a healthcare company
- [ ] Owner of a healthcare company
- [ ] Other(s)

- [x] I do not have any potential conflict of interest
Venous access

- Ultrasound guidance
  - Ipsilateral popliteal vein
  - Ipsilateral femoral vein
  - Jugular vein

- Pro’s and con’s
  - Patient positioning
  - Support
  - Recanalization

- Long guiding sheaths
Recanalization

• Different angulations

• Use tip of guidewire

• Confirm re-entry
  • before advancing guidewire

• Advance catheter
  • CTO
  • Exchange for extra stiff guidewire

• Large balloon dilation
  • Occasionally high pressure balloon (>20 Atm)

• Stent sizing
  • Large enough, don’t overdo it!
Proximal stent positioning

- Anatomical considerations
  - Overriding common iliac artery
  - Stent should cover completely
  - Avoid extension over contralateral inflow
Proximal stent positioning
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- Suggestion of CIA movement in coronal plane
  - Especially if stent ending exactly below the CIA
  - Might slip over stent and cause recurrent compression
Proximal stent position
Distal stent positioning

- Principally land stent in a healthy vein segment

- Inguinal ligament is not a boundary
  - Stent design might be an issue
  - Over-dilation is eminent: recoil!

- Block as few inflow branches as possible
  - Multiple profunda branches
  - Fibrous flaps might obstruct inflow
Inflow aspects

- Important inflow veins
  - Femoral vein
  - Profunda femoral vein

- Trabeculations/webs
  - Fibrotic(PTS) changes
Fibrous flap in CFV

Obstruction of the iliac veins

Profunda vein

Femoral vein
Trabeculations in stent landing zone
Determine landing spot - IVUS
Determine landing spot - balloon
Key points

- Recanalization success comes with patience
  - Interventional material
  - Alternate projections

- Stent sizing and positioning
  - Anatomical and physiological considerations
  - Optimize inflow
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