20 years of planning venous stents: what I have learned

O Hartung

Dept of Vascular Surgery
Hôpital Nord, Marseille, FRANCE

Disclosure

Consultant for
- Boston Scientific
- Cook
- Medtronic
- Veniti

Venous stenting

- First line TRT for obstructive venous disease
  - Surgery in case of failure only

Who?

- Chronic patients
  - C3s-C6
  - Disabled despite BMT
  - >6 months after DVT
    - no more lesion regression at DS (FV, CFV)

Non invasive lesions evaluation

- Under the inguinal ligament: DS
- Approach
- Percutaneous or hybrid procedure

- Abdomino-pelvic lesions: CTV or MRV

During the procedure

- Phlebography
- IVUS +++

⇒ Recognize and treat all lesions
Obstruction + reflux

- Obstruction first

Approach

- Anesthesia: local + sedation
  - Detect perforations
- Percutaneous echo-guided
  - NIVL: Common femoral vein
  - postDVT
    - Femoral vein +++
    - Popliteal vein if severe obstruction/occluded FV
    - Internal jugular vein if bilateral/IVC lesions

Why do we need to stent?

- Major elastic recoil

Stents

- Self-expanding stents
  - Long (at least 60 mm) and large
  - Multiple stents: overlapping > 20mm
  - 3 stents: cephalic and caudal then fill the gap

Vein Diameter

- IVC 20-24 mm
- CIV 16-20 mm
- EIC 14-18 mm
- CFV 12-16 mm
**Biiliocaval stenting**

- Only in CTO
- Predictive factor of failure:
  - Occluded deep vein with history of open surgery
- No risk of worsening:
  - Duplex-scan
  - Clinical

==> Always make an attempt

**Technical failure**

**Postoperative course**

- Improve venous flow
  - IPC
  - Walking
- Anticoagulation:
  - NIVL: LMWH 3W + Clopidogrel 1Y
  - Post DVT: VKA 1Y + Clopidogrel 2Y
  - INR 2,8-3,2

**Conclusion**

First line TRT for obstructive venous disease

- Surgery in case of failure only

- Preoperative evaluation
  - Inflow CFV
- Postoperative management
  - Early deambulation and IPC
  - Medical treatment