Venous stenting

Why?
Disclosure

Speaker name:

I have the following potential conflicts of interest to report:

- Consulting: Cook medical; Optimed GmbH; Bard; Volcano/Philips; TVA Medical; Vesper Medical;
- Employment in industry
- Stockholder of a healthcare company
- Owner of a healthcare company
- Other(s)

I do not have any potential conflict of interest
Indications for stenting in DVO

**Thrombosis related**
- Acute deep vein thrombosis
  - Underlying compression
  - Residual thrombus
- Post-thrombotic syndrome
  - Chronic Iliac vein obstruction

**Non-thrombotic**
- NIVL
  - May-Thurner Syndrome
  - Other compression syndr

Right common iliac artery

Left common iliac vein

Spine
Signs & Indications - Acute

- Clinical information/complaints
  - Limb edema
  - Pain
  - Warmth and erythema

- Imaging
  - Duplex
  - CT venography and MR venography
Stenting during thrombolysis

- **Rationale:** treat underlying cause, prevent recurrence
  - Compression
  - Acute on chronic (previous asymptomatic DVT)

- **Residual thrombosis**\(^{1,2}\)
  - Thrombus age

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2. Aziz et al. EJVES 2012
Stenting during thrombolysis

• Incidence underlying obstruction
  • Between 33%\(^{(1)}\) and 80%\(^{(4)}\)
  • Actual number might be higher

• Outcome
  • \(^{(1)}\) National venous registry: 33% stented, 74% vs 53% 1Y iliac patency
  • \(^{(2)}\) 55% iliac stenting, 82% patent veins/competent valves at 6Y
  • \(^{(3)}\) 17% iliac stenting, 66% iliac patency at 6M

1. Mewissen et al. Radiology 1999
Post-thrombotic Syndrome

- 20-30% iliac veins recanalize on OAC
- 25-80% develop PTS after DVT
  - 44% venous claudication after 5 years
- 5-10% develop extreme PTS
  - 15% ulcerations after 5 years

- Relation between location thrombosis and PTS
  - Below the knee: rare
  - Upper leg: frequent
  - Iliac and IVC: more frequent
Signs & Indications - Chronic

• **Clinical information/complaints**
  - Venous claudication
  - Scoring: CEAP, VCSS, Villalta
  - QoL: VEINES-QOL/Sym

• **Imaging**
  - Duplex
  - CT venography and MR venography
  - Intravascular ultrasound (IVUS)
Non-thrombotic Iliac Vein Lesion

- **NIVL: May-Thurner, Cocket**
  - Compression overlying artery

- **Diagnosis**
  - 30-50% lumen reduction$^{(1, 5)}$
  - Clinic: venous claudication

1. Neglen et al. Eur J Vasc Endovasc Surg 2000
Venous Claudication

- Venous hypertension
- Increases during walking, but also standing still
- Elevating leg relieves pain
- No validated diagnostic tool
Why?

- 24 year old women
- Completely normal legs
- Not able to play her favorite sports anymore
- Social isolation

- Duplex & MRV: MT compression
- Angiography: typical pelvic collateralization
- Treatment: 1 stent
Venous stenting

Why?
Venous stenting

Why?

Rick de Graaf, MD  PhD
Interventional Radiologist
r.de.graaf@MUMC.nl