Venous stenting

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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)

Check box for: Speakers honoraria (BARD, Optimed)

- I do not have any potential conflict of interest
Iliocaval and iliofemoral obstructions

**Thrombotic lesions**
- Acute iliofemoral thrombosis (residual lesions after thrombolysis)
- Chronic postthrombotic lesions

**NIVL**
- Nonthrombotic iliac vein lesions
  - May-Thurner syndrome
  - Other causes of compression (tumor, cysts, fibrosis, …)

**Iliocaval atresia**

**Clinical relevance**
Pathophysiology

Acute thrombosis

- Outflow obstruction
- Thrombus organization +/- recanalization
- Collateral venous circulation

Acute inflammatory response

- Vein wall damage
- Vein valve damage
- Venous valvular reflux

Venous hypertension

Edema, teleangiectasia, venous ectasia, varicose veins, lipodermatosclerosis, hyperpigmentation, ulceration

SVS/AVF guidelines:

ESVS recommendations:

In a patient with inferior vena cava or iliac vein chronic total occlusion or severe stenosis, with or without lower extremity deep venous reflux disease, that is associated with skin changes at risk for venous leg ulcer (C4b), healed venous leg ulcer (C5), or active venous leg ulcer (C6), we recommend venous angioplasty and stent recanalization in addition to standard compression therapy to aid in venous ulcer healing and to prevent recurrence. [Grade 1; Level of evidence C]

In patients with clinically relevant chronic ilio-caval or ilio-femoral obstruction or in patients with symptomatic non-thrombotic iliac vein lesions, percutaneous transluminal angioplasty and stent placement using large self expanding stents should be considered. [Grade IIa; Level of evidence B]

CIRSE recommendations:

Patients with CEAP clinical class 3-6 and chronic venous outflow obstruction should be considered for interventional therapy. Current recommendations

Wittens C et al. Eur J Vasc Endovasc Surg 2015
Mahnken AH et al. Cardiovasc Intervent Radiol 2014

Current recommendations
Case

♀ 18 year-old, chronic leg swelling, feeling of tension and heaviness, venous claudication, proximal DVT (right leg) 2014
Case

- Free of any symptoms: no pain, no feeling of tension or heaviness any more, no venous claudication

- Started with regular exercise training (lost 9kg)

- Had to buy new trousers (reduction of leg swelling)
Setting

Optimal puncture site (popliteal, jugular, femoral)

Sedoanalgesia or general anesthesia

High-end ultrasound system + IVUS

Urinary catheter

6F + 10F introducer sheath

Choice of wires (Terumo 0.035“ stiff, angled,...)

Choice of nc high-pressure balloons (Atlas Gold,...)
After the intervention

Continuous parenteral anticoagulation

Long-term: Vit K antagonist or DOAC (+/- clopidogrel)

Compression stockings

Clinical and sonographic follow up
Conclusion

Acute thrombosis vs. chronic iliocaval/iliofemoral obstructions

Assessment of the clinical relevance

Setting & Equipment (IVUS, dedicated venous stents...)

Clinical and sonographic follow up
Venous stenting

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