Venous stenting

Oliver Schlager
Division of Angiology
Medical University of Vienna
Disclosure

Speaker name:
Oliver Schlager

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)

☒ I do not have any potential conflict of interest
Indications for venous stenting

Venous obstructions

Residual stenosis after thrombolysis

Postthrombotic syndrome

Venous atresia

May-Thurner Syndrome (Cockett’s Syndrome)

Other compression (tumor, cysts, fibrosis,...)
Chronic venous obstructions

- Edema
- Heaviness and/or tension
- Venous claudication
- Pain
- Pruritus
- Hyperpigmentation
- Lipodermatosclerosis
- Venous ulcer

## Classification of venous disease

<table>
<thead>
<tr>
<th>Clinical</th>
<th>Etiologic</th>
<th>Anatomic</th>
<th>Pathophysiologic</th>
</tr>
</thead>
<tbody>
<tr>
<td>C0: no sign of venous disease</td>
<td>Ec: congenital</td>
<td>S: superficial veins</td>
<td>Pr: reflux</td>
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<tr>
<td>C1: teleangiectasies, reticular veins</td>
<td>Ep: primary</td>
<td>p: perforator veins</td>
<td>Po: obstruction</td>
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<tr>
<td>C2: varicose veins</td>
<td>Es: secondary</td>
<td>d: deep veins</td>
<td>Pr, o: reflux + obstruction</td>
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<tr>
<td>C3: edema</td>
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<td>pn: not identifiable</td>
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<td>C4a: pigmentation, eczema</td>
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<td>C4b: lipodermatosclerosis, atrophie blanche</td>
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<td>C5: healed ulcer</td>
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<td>C6: active ulcer</td>
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*Venous Clinical Severity Score

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]

Pathophysiology

Endothelialized strands – synechiae – endoluminal fibrosis

Mackman N. Nature 2008;451(7181):914-8
Maleti O. Phlebolymphology 2014;21(3):131-7
Stent requirements
Dedicated venous stents

Bard

Boston Scientific

Cook

Medtronic

Optimed

Veniti
Intervention

Optimal puncture site (popliteal, jugular, femoral)

Sedoanalgesia vs. general anesthesia

High-end ultrasound system + IVUS

Urinary catheter

6F + 10F introducer sheath

Choice of wires (Terumo 0.035“ stiff, angled, Astato Asahi 0.018“,...)

Choice of nc high-pressure balloons (Atlas Gold,...)
Intervention

Female patient, 51 y, iliofemoral DVT 2001, postthrombotic syndrome
After the intervention

Continuous i.v. UFH until next day

Starting the next day: Vit K antagonist or NOAC (+/- clopidogrel)

Compression stockings

Clinical and sonographic follow up
Conclusion

Choose the right indication (PTS, DVT, MTS, other compression)

“Treat the patient”, not the morphology

Use dedicated venous stents

Periprocedural management
Thank you for your attention

oliver.schlager@meduniwien.ac.at
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