Endoluminal treatment of varicose veins

Which treatment option for which patient?
Disclosure

Speaker name: Anina Lukhaup

I have the following potential conflicts of interest to report:

☒ Consulting Pfizer, Bayer, Daiichi-Sankyo
☐ Employment in industry
☐ Stockholder of a healthcare company
☐ Owner of a healthcare company
☐ Other(s)

☐ I do not have any potential conflict of interest
Variety of treatment options
Radiofrequency ablation

• Segmental thermal ablation
• Katheter tip heat 120°C
• Tumescent anesthesia
• Ultrasound guided positioning
• 7F sheath
Laser

- Thermal treatment
- Tumescent anesthesia
- Ongoing development
  - radial laser
  - two ring laser fiber
  - slim laser
  - wavelength

Two-ring radial laser Biolitec®
Glue

- Non-thermal
- No tumescent anesthesia
- Endovenously inserted medical adhesive
  - 1-2 ml Cyanoacrylate

Venaseal Medtronic®
MOCA

- Mechanochemical ablation
- Non-thermal
- Mechanical induced vasospasm prior to insertion of Aethoxysklerol®
- Lack of long term results
Foam

- Aethoxysklerol® Kreussler®
- Well established treatment for smaller veins
  - Side branches
  - Vein recurrence
  - Variceal bleeding
- Lower okklusion rates in stem vein treatment
How to choose?

• Vessel anatomy?
  • vessel diameter
  • tortous or straight vein
  • Intrafascial, epifascial or superficial vein

• Former inflammation or thrombosis?

• Risk of nerve injury?

• Tolerance of compression?
### How to choose?

<table>
<thead>
<tr>
<th>Condition</th>
<th>RF</th>
<th>Laser</th>
<th>Slim laser</th>
<th>Glue</th>
<th>Foam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large vessel diameter</td>
<td>✓</td>
<td>✓</td>
<td></td>
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<tr>
<td>Tortuoses vein</td>
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<td>Postthrombotic vein</td>
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<tr>
<td>Vein recurrence</td>
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<td>(✓)</td>
<td>✓</td>
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<tr>
<td>Large side branches</td>
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<td></td>
<td>(✓)</td>
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<tr>
<td>No risk of thermal lesion</td>
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<tr>
<td>Superficial vein</td>
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<td>✓</td>
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</tbody>
</table>
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