Contraindications And Limits:

Laser

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Contraindications

- Patients who are pregnant or breastfeeding (concerns related to anesthetic use and heated blood effluent that may pass through the placenta to the fetus)
- Obstructed deep venous system inadequate to support venous return after ELA
- Liver dysfunction or allergy making it impossible to use a local anesthetic (cold saline may be useful as an alternative)
- Allergy to both amide and ester local anesthetics (cold saline may be an alternative)
- Severe uncorrectable coagulopathy (ELA is safe with warfarin use if INR 2-3)
- Severe hypercoagulability syndromes (where risks outweigh potential benefits despite prophylactic anticoagulants)
- Inability to adequately ambulate after the procedure
- Sciatic vein reflux

LIMITS

A sliding scale approach has been used at Miami Vein Center since 2002 and has yielded excellent results


Energy delivery

Table IIIa. Laser energy protocol

<table>
<thead>
<tr>
<th>Vein size (mm)</th>
<th>Laser energy delivery (J/mm²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10</td>
<td>50</td>
</tr>
<tr>
<td>10-15</td>
<td>50-60</td>
</tr>
<tr>
<td>15-20</td>
<td>60-70</td>
</tr>
<tr>
<td>20-25</td>
<td>70-80</td>
</tr>
<tr>
<td>25-30</td>
<td>80-90</td>
</tr>
<tr>
<td>&gt;30</td>
<td>90-100</td>
</tr>
</tbody>
</table>

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Tributaries and perforators can be a source of cool blood and lead to recanalization

Table IIIb. Size of recanalization

<table>
<thead>
<tr>
<th>Vein size (mm)</th>
<th>P% Recanalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10</td>
<td>5</td>
</tr>
<tr>
<td>10-15</td>
<td>5</td>
</tr>
<tr>
<td>15-20</td>
<td>1</td>
</tr>
<tr>
<td>20-25</td>
<td>1</td>
</tr>
<tr>
<td>25-30</td>
<td>1</td>
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<tr>
<td>&gt;30</td>
<td>1</td>
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</tbody>
</table>

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Saphenectomy In Patients With Chronic Venous Obstruction Due To Previous DVT

Saphenectomy, n= 51 limbs without obstruction, and 64 limbs with varying grades of venous obstruction

Saphenectomy well tolerated in all limbs and no difference in outcome was noted as measured by objective tests for obstruction

Improvement in reflux and calf venous pump function was largely similar

Saphenous vein contributes little to the collateral compensation in patients with obstructive disease and that the vein may therefore be surgically removed

Raju S, Surgery 1998;123:637-644

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Risk of thermal injury

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SASV

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LADS-
laser assisted distal saphenectomy

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Neovascularization / Tortuosity

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Neovascularization / Tortuosity
Tortuous Veins, Kinks, Transitions

- Patient prone
- VOG
- 2 access sites

EVLA of VOPF

VOPF LIVE Case IVC 2011

VOPF

Delis KT. J Vasc Surg 2006

VOPF LIVE Case IVC 2011

Conclusion:
- If it’s straight- burn it.
- If it’s palpable on the surface- remove it.
- If it’s tortuous- foam it

Recalcitrant disease think obstruction

Thank you!