A systematic review and meta-analysis of the treatments of varicose veins

- *Primary failure and recurrence after thermal ablations are not significantly different compared to surgery*
- *Thermal ablations have less early complications, less pain and earlier return to normal activities than surgery*

**ENDOVENOUS THERMAL ABLATION RCTS: DO WE KNOW ENOUGH?**

NO!

**BUT WE KNOW A LOT!**

**ENDOVENOUS THERMAL ABLATION RCTS: DO WE KNOW ENOUGH?**

- 30 RCTs
- 28 RCTs

- 13 RCTs, 3081 patients
- 8 RCTs EVLT with surgery
- 5 RCTs RFA with surgery

EVLT, RFA and UGFS are at least as effective as surgery. The evidence is lacking robustness.

**Conflict of Interest**

None
**SVS AVF Guidelines**

Search free "SVS iPG" in App Store or Google Play

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**Guidelines for management of patients with varicose veins and associated chronic venous diseases**

<table>
<thead>
<tr>
<th>Guideline No.</th>
<th>Guideline title</th>
<th>GRADE of recommendation</th>
<th>Level of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.2</td>
<td>We recommend endovenous thermal ablation of the incompetent saphenous vein over open surgery.</td>
<td>1</td>
<td>B</td>
</tr>
<tr>
<td>12.2</td>
<td>We recommend endovenous thermal ablation of the incompetent saphenous vein over chemical ablation with foam.</td>
<td>1</td>
<td>B</td>
</tr>
</tbody>
</table>

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**Early Postoperative Pain**

- **P= .01**

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**Time To Resume Normal Activity And Return To Work**

<table>
<thead>
<tr>
<th></th>
<th>EVLA N=144</th>
<th>RFA N=148</th>
<th>UGFS N=144</th>
<th>Stripping N=142</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time to resume normal activity (days) *</td>
<td>2 (0–30)</td>
<td>1 (0–30)</td>
<td>1 (0–30)</td>
<td>4 (0–30)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Time to resume work (Days) *</td>
<td>3.6 (0–46)</td>
<td>2.9 (0–42)</td>
<td>2.9 (0–42)</td>
<td>4.3 (0–42)</td>
<td>&lt;.001</td>
</tr>
</tbody>
</table>

* Median (range)

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**Failure Of Saphenous Ablation**

<table>
<thead>
<tr>
<th></th>
<th>EVLA N=144</th>
<th>RFA N=148</th>
<th>UGFS N=144</th>
<th>Stripping N=142</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 days</td>
<td>0 (0)</td>
<td>0 (0)</td>
<td>3 (2.1)</td>
<td>4 (2.8)</td>
<td>.053</td>
</tr>
<tr>
<td>1 month</td>
<td>1 (0.7)</td>
<td>0 (0)</td>
<td>2 (1.4)</td>
<td>3 (2.2)</td>
<td>.20</td>
</tr>
<tr>
<td>1 year</td>
<td>7 (5.8)</td>
<td>6 (4.8)</td>
<td>20 (16)</td>
<td>4 (4.8)</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>3 year</td>
<td>8 (7.0)</td>
<td>8 (6.8)</td>
<td>31 (26.4)</td>
<td>8 (6.5)</td>
<td>&lt;.01</td>
</tr>
</tbody>
</table>
Reoperations at 3 years

Design: multicenter RCT
Study Groups (n=224 legs):
Conventional Surgery (CS): n=69
Endovenous Laser Ablation (EVLA): n=78
Ultrasound-guided Foam Sclerotherapy (UGFS): n=77

Successful Saphenous Ablation

No Reinterventions

QoL scores (CIVIQ, EQ-5D™)

5 Year Results
Design: Multicenter RCT

CLASS: Comparison of Laser, Surgery and Foam Sclerotherapy

Methods: Data collected on Costs and quality adjusted life years (QALYs) at 6 months and extrapolated for 5 years using the Markov model

Incremental Cost Effectiveness Analysis At 5 Years

Conclusions

What we know from RCTs

• Endovenous thermal ablations and foam sclerotherapy are at least as efficacious as surgery in the treatment of varicose veins.

Conclusions

What we need to know from more RCTs

• Need RCTs with patient and physician reported long term outcomes and similar time points, to provide more robust evidence of efficacy
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What we need to know from more RCTs

• Need RCTs with patient and physician reported long term outcomes and similar time points, to provide more robust evidence of efficacy
• Need more RCTs on long term cost effectiveness of currently used procedures

THANK YOU!