Endovenous Treatment of the short saphenous vein (SSV): as good as for the great saphenous vein (GSV) ?

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I-MEET
Next generation
2016, june 2-3
Consultant for Cook
Consultant for Bard
Consultant for Medtronic
Introduction

Historically, to treat the reflux of the SSV, 3 methods are proposed:

- High ligation and stripping (HL)
- EndoVenous Laser Treatment (EVLT)
- Ultrasound Guided Foam Sclerotherapy (UGFS)
Use of RadioFrequency Ablation (RFA) to treat reflux of SSV

Because of the risk of neurological burns, the RFA was not recommended

But the arrival of a new catheter (3 cm, Medtronic/Covidien) also allows the treatment of the reflux of SSV
Treatment of reflux in SSV is now possible but are the results equivalent at the results of treatment of the reflux in the GSV?
<table>
<thead>
<tr>
<th>Autor</th>
<th>year</th>
<th>Journal</th>
<th>legs</th>
<th>Type</th>
<th>Follow up (month)</th>
<th>Success %</th>
<th>DVT %</th>
<th>Paresthesiae %</th>
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<td>JVS VLD</td>
<td>125</td>
<td>RFA</td>
<td>36</td>
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<td>&lt; 1</td>
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<td>125</td>
<td>Stripping</td>
<td>36</td>
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<td>125</td>
<td>EVLT</td>
<td>36</td>
<td>93 %</td>
<td>&lt; 1</td>
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<td></td>
<td></td>
<td>125</td>
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<td>36</td>
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<td>&lt; 1</td>
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<td>Br J Surg</td>
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<td>Coleridge Smith</td>
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<td>1,7</td>
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<td>EJVES</td>
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<td>2016</td>
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<td>99</td>
<td>RFA</td>
<td>32 (28-38)</td>
<td>98 %</td>
<td>0</td>
<td>2 %</td>
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</table>
PATIENT RECOVERY

RTA (days)

5.4

3.1

GSV

SSV

NS
Special recommendations to use endovenous treatment in the treatment of reflux of SSV

- Prick in it at the third inferior level of the calf
- Position in 2 cm of sapheno-popliteal junction under echoguided control
- Well know the mode and the level of ending of SSV and the gastrocnemius veins
- Inject a large quantity of tumescence

TO AVOID Post operative thrombosis and paresthesia
Anatomical type of the ending
Patients and methods

From 01/12 to 01/13, prospective non randomised study, follow up until 01/16

141 patients (162 Legs):

57 HL (63 legs)
84 RFA (99 legs)

No différence: gender, weight, age

100 % LWHM in the post operative course
The choice of the treatment was based about:
- the diameter: < 12 mm (RFA); > 12 mm (HL)
- the distance between the skin and the vein (before tumescence): > 5 mm (RFA); < 5 mm (HL)
- the mode of temination: Type A and D (RFA), type B an C (HL)
Follow up
D 7, M6, Y1, Y2 and Y3

Clinical evaluation and duplex scan
- Deep venous thrombosis (DVT) or thrombosis of gastrocnemius veins
  - reopening
  - paresthesia
- clinical and echographic recurrence
IMMEDIATE RESULTS

Mean Follow up: 32 months (28-38)
100 % primary success
No DVT
No skin burns, no matting
IMMEDIATE RESULTS
PARESTHESIAE

HL: 3 (5.26 %)   RFA: 4 (4.76 %)   NS
M6: 2 (HL), 0 (RFA)
Y 1: 1 (HL), 0 (RFA)
Y 2: 0
IMMEDIATE RESULTS

Return to normal activities

\[ \text{HL: } 7 \text{ d (3-15)} \quad \text{RFA: } 2.7 \text{ d (1-10)} \quad p = 0.03 \]

For bilateral procedure:

\[ \text{HL: } 10.2 \text{ D (6-15)} \quad \text{RFA: } 3.1 \text{ j (1-10)} \quad p = 0.01 \]

Quality of life (Aberdeen)

Significative difference at 7d

no différence after
MIDDLE RESULTS

Mean Follow up

32 months (28-38): 88 % M24
85 % M36

M24: No recurrence (HL = RFA)
M36: 4 Recurrence (perforator of popliteal fossa) 2 RFA 2 HL
CONCLUSIONS

Endovenous treatment is safe in the treatment of the reflux of the SSV but it is necessary to respect specific precautions of realization.

The immediate and middle results are similar than the results in the treatment of the reflux of the GSV

Endovenous treatment can be thus proposed by first intention in the treatment of the reflux of SSV while waiting for the long-term follow-up.