After thermal ablation of the GSV, do we have to treat systematically AASV in the same time (different anatomic variations of SFJ)?

Olivier Pichot, Grenoble
Disclosure

I do not have any potential conflict of interest for this presentation.
Duplex anatomy
AASV trunk
AASV trunk
AASV termination: into the GSV
Common termination with GSV
AASV termination: into the CFV
Anatomical variations: AASV termination
Anatomical variations:
AASV trunk
Hemodynamic
Hemodynamic
Hemodynamic
## Incidence of AASV reflux

<table>
<thead>
<tr>
<th></th>
<th>Limbs (n)</th>
<th>Isolated AASV reflux (%)</th>
<th>Combined AASV &amp; GSV reflux (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labropoulos EJVES 1999</td>
<td>612</td>
<td>4.9</td>
<td>-</td>
</tr>
<tr>
<td>Garcia Gimeno JVS 2009</td>
<td>2036</td>
<td>10.9</td>
<td>-</td>
</tr>
<tr>
<td>Laredo Endovascular today 2010</td>
<td>313</td>
<td>10</td>
<td>1.6</td>
</tr>
</tbody>
</table>
American College of Phlebology Guidelines – Treatment of refluxing accessory saphenous veins

Kathleen Gibson¹, Neil Khilnani², Marlin Schul³ and Mark Meissner⁴; on behalf of the American College of Phlebology Guidelines Committee

Recommendation

We recommend that patients with symptomatic incompetence of the accessory GSVs (AAGSV and PAGSV) be treated with endovenous thermal ablation (laser or radiofrequency) or UGFS to reduce symptomatology (strength of recommendation Grade 1, Level of evidence C).
Single TA of the AASV
TA of both GSV and AASV
REVATA Study

- **Prevail in 164/2380 patients after EVL or RF**
  - 159 GSV TA: 97% ( + adjunctive SSV TA in 43 patients)
  - 2 isolated SSV and 3 AASV ablations

- **Mean time of VV recurrence: 3 years**

- **Origin of recurrence:**
  - Total or partial GSV recanalization: 29%
  - New VV in unablated GVS territory: 14%
  - **AASV reflux:** 24%
  - New SSV reflux: 16%
  - Perforator pathology: 64%

Bush 2014
AASV evolution after GSV TA

- 93 limbs in 76 patients
- AASV detectable in 46% refluxing in 2%

(No) AASV reflux probability

55%

(No) AASV axial reflux probability

35%

Proebstle 2015
AASV evolution after GSV TA

Probability of (no) present AASV

Days from Treatment

<table>
<thead>
<tr>
<th>Days</th>
<th>0</th>
<th>150</th>
<th>300</th>
<th>450</th>
<th>600</th>
<th>750</th>
<th>900</th>
<th>1050</th>
<th>1200</th>
<th>1350</th>
<th>1500</th>
</tr>
</thead>
<tbody>
<tr>
<td>At Risk</td>
<td>93</td>
<td>49</td>
<td>49</td>
<td>41</td>
<td>40</td>
<td>34</td>
<td>31</td>
<td>29</td>
<td>25</td>
<td>25</td>
<td>4</td>
</tr>
</tbody>
</table>
Is there a place for treating non-refluxing accessory vein in a prophylactic fashion at the time of GSV ablation?
PREVAIT after TA

- 8 comparisons TA vs L&S in 7 RCTs ≥ 2Y FU
  - RFA n=3
  - EVL n=5

- Overall recurrent VV
  - after L&S: 22%
  - after TA: 22%

- Different mechanisms
  - L&S:
    Neovascularization: 18%
  - TA:
    Recanalization: 32%
    AASV reflux: 19%

PREVAIT after TA resulting of AASV reflux:
4.2%

O’Donnell 2016
Secondary UGFS

UGFS in primary AASV (n 93) and recurrent AASV (n 46)

Table II. Second UGFS treatments for recurrent (recanalization) and new reflux

<table>
<thead>
<tr>
<th>First treatment</th>
<th>GSV reflux</th>
<th>AASV reflux</th>
<th>SSV reflux</th>
</tr>
</thead>
<tbody>
<tr>
<td>Legs (%) requiring second UGFS</td>
<td>122 (11.8%)</td>
<td>14 (10.1%)</td>
<td>25 (10.5%)</td>
</tr>
<tr>
<td>Mean (range) follow-up (months)</td>
<td>41 (6-68)</td>
<td>35 (8-64)</td>
<td>32 (9-66)</td>
</tr>
<tr>
<td>Recurrent reflux (n = 109)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GSVa</td>
<td>87</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>AASV</td>
<td>—</td>
<td>5</td>
<td>—</td>
</tr>
<tr>
<td>SSV</td>
<td>—</td>
<td>—</td>
<td>17</td>
</tr>
<tr>
<td>Recanalization rate</td>
<td>8.4%</td>
<td>3.6%</td>
<td>7.1%</td>
</tr>
</tbody>
</table>

Bradbury 2010
Descending or ascending progression?

AASV
Descending or ascending progression?
ACP Recommendation
We recommend that patients with symptomatic incompetence of the accessory GSVs (AAGSV and PAGSV) be treated with endovenous thermal ablation (laser or radiofrequency) or UGFS to reduce symptomatology.

There are no data, however, to demonstrate that treating non-refluxing accessory vein in a prophylactic fashion at the time of GSV ablation improves patient outcomes or reduces the incidence of varicose vein recurrence.
Don’t miss any AASV reflux!
Thanks for attention!