Recurrence After Prior Successful Saphenous Vein Treatment

Surgical Treatment

Does ‘good’ surgery prevent recurrence?

70 patients managed by GSV stripping

Post-op duplex at 1 week confirmed success

Re-examined after 1 year

4 (6%) patients complete strip track neovascularisation

12 (17%) patients partial strip track neovascularisation


Recurrence Following Endovenous Laser Ablation

RCT (43 patients with bilateral GSV incompetence) comparing laser with and without SFJ high ligation

1 leg w/lig., 1 leg w/o lig.

Recurrence results after 5 years:

With SFJ ligation: 35% P=0.36

Without SFJ ligation: 21%

Outcome of recurrent varicose veins surgery

RCT of recurrent VVs – 31 patients (40 legs)

Re-do SFJ ligation + PTFE patch

Post-op complications (35% of limbs)

nerve injury, lymphatic injury, wound infection

1 year later

Neovascularisation seen at SFJ in 9 of 32

No difference with PTFE patch


What other methods can we use to treat recurrent varices?

Electrical - RF Ablation

Foam sclerotherapy

Laser EV Laser ablation

Incomplete Thermal Ablation

**Treatment Failures**

- **Incidence:**
  - 0-20%
  - Variable definitions (mostly surrogate outcome measurements):
    - Sonographic absence of the target vein
    - No flow in treated segment
    - Absence of visible reflux
    - Segmental patency of no more than 5cm without reflux
    - Resolution of symptoms

Source: The Vein Book – Chapter 11

Identification of incomplete ablation is dependent on the sensitivity of the ultrasound equipment used for postoperative examination, the expertise of the sonographer, and the vigor and independence with which the examination is conducted.

Incomplete Thermal Ablation

**Treatment Failures**

- Partial patency (failure) can be detected anytime and is (or will become) associated with recurrent symptoms or varices.
  - 4 days – 77 months
- If the GSV is sonographically visible beyond the 1-year interval, it remains at least partially patent.

Foam injection distal great saphenous vein

**Treatment Failures**

- **Duplex examination**
  - Should include gray scale, compression, and color flow Doppler
- **Ultrasound-guided foam sclerotherapy** can convert ~ 80% of incompletely ablation veins to completely ablated veins.

Incomplete Ablation

**Treatment Failures**

- Foam
  - Excellent contrast medium
  - Injection distal vein segments, recurrence, tributaries, incompetent perforators reveal incompletely ablated vein which appears completely occluded
Recurrent Varicose Veins
Foam sclerotherapy of VVs – 165 patients (185 legs)
CEAP 1 – 3: n=76
CEAP 4 – 6: n=109
After 2 weeks: 93% truncal occlusion, 10% residual varices

After 6 months:
Overall 74% truncal occlusion
Primary 75% occlusion, recurrent 72% occlusion
CEAP 2-3: 73% occlusion, CEAP 4-6: 74% occlusion
<7mm dia: 76% occlusion, >=7mm: 57%

O’Hare JL, Parkin B, Vandenberghe CP, Earnshaw.

Recurrence of Pelvic Origin
VV of upper medial thigh, perianal, or gluteal, posterior thigh

Treatment: Ultrasound guided foam sclerotherapy

Recurrence Following Thermal Ablation Pelvic Venous Insufficiency
A common indication to pursue further pelvic insufficiency investigation/treatment is early or repeated recurrence of leg varicosities/symptoms

Recurrence Following Thermal Ablation Pelvic Venous Insufficiency
Truncal & non-truncal incompetent veins
• Thermal/AP/Foam UGS
• Including direct injection sclerotherapy of labial varicosities

Conclusions
Unless one is committed to careful follow up and adjunctive treatment, the practitioner and the patient will be left with unsatisfactory results.
Thank you for your kind attention

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