Minimally Invasive treatment options for Venous Insufficiency

Do we have a new Gold Standard and a cure for Venous Leg Ulcers?

Dr Claire Campbell MBBS FRACS (Vasc)
Vascular and Endovascular Surgeon
Epworth Hospital

Patients with venous ulcers

– 51% to 53% have isolated reflux in the superficial system
– 32% to 44% in both the deep and superficial system
– and in 5% to 15% of patients is confined to the deep system alone
  • (Barwell 2004).
Current Evidence

- Surgical intervention for venous insufficiency significantly reduces ulcer recurrence rate when compared with compression

Current *Guidelines* support Surgical Intervention for treatment of Venous Insufficiency for management of Leg Ulcers

The care of patients with varicose veins and associated chronic venous diseases: Clinical practice guidelines of the Society for Vascular Surgery and the American Venous Forum

*JOURNAL OF VASCULAR SURGERY*
4S Gloviczki et al May Supplement 2011
What we know

• Up to 20% of patients will refuse surgical intervention
• A large majority of patients are elderly and frail and not ideal surgical candidates (653 of 1418 patients in ESCHAR study excluded as deemed not suitable for surgery)
• Surgery is no longer the Gold Standard treatment for venous insufficiency
• Endovenous techniques are safer, better tolerated and may be more efficacious

The care of patients with varicose veins and associated chronic venous diseases: Clinical practice guidelines of the Society for Vascular Surgery and the American Venous Forum

JOURNAL OF VASCULAR SURGERY
45 Gloviczki et al May Supplement 2011

Guideline 10. Open venous surgery

<table>
<thead>
<tr>
<th>Guideline No.</th>
<th>10. Open venous surgery</th>
<th>GRADE of recommendation</th>
<th>Level of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1</td>
<td>For treatment of the incompetent great saphenous vein, we suggest high ligation and inversion stripping of the saphenous vein to the level of the knee.</td>
<td>2</td>
<td>B</td>
</tr>
</tbody>
</table>
Endovenous therapies of lower extremity varicosities: A meta-analysis
Renate van den Bos, MD,a Lidia Arends, PhD,b,c Michael Kockaert, MD,a Martino Neumann, MD, PhD,a and Tamar Nijsten, MD, PhD,a Rotterdam, The Netherlands
Endovenous Laser

80% of venous treatment - Endovenous Laser
USA and Europe

Significantly higher success rate than surgery

Outpatient Procedure
Local Anaesthetic
Immediate Return to Work
Low complication rate

Endovenous Laser
Technique

ELVeS Endovenous laser
Ultrasound Guided Foam Sclerotherapy

Pre–Laser
4th February 2013

Post–Laser + UGS
21st May 2013

VARICOSITIES WERE NOT directly treated
Pre–Laser

4th February 2013

Post–Laser + UGS

21st May 2013

VARICOSITIES WERE NOT directly treated

Chronic Venous Ulcer: Minimally Invasive Treatment of Superficial Axial and Perforator Vein Reflux Speeds Healing and Reduces Recurrence

Peter B. Alden, Erin M. Lips, Kate P. Zimmerman, Ross F. Garberich, Adnan Z. Rizvi, Alexander S. Tretinyak, Jason Q. Alexander, Kathryn M. Dorr, Mark Hutchinson, and Sarah L. Isakson, Minneapolis, Minnesota
86 patients with chronic venous insufficiency

- 95 active ulcers
- Compression alone ("compression group") versus compression and thermal ablation and ultrasound-guided foam sclerotherapy (UGFS) of incompetent perforating veins and varicosities ("intervention group").
- Compared with the compression group, the ulcers in the intervention group healed faster (9.7% vs. 4.2% per week; P = 0.001) and showed fewer recurrences at 1-year follow-up (27.1% vs. 48.9%; P < 0.015).

Patient 1

- 61 year old lady
- Obesity
- Type 2 Diabetes
- Hypertension
- Venous Ulcer
- 29th June 2011
- Present for 3 years post skin lesion excision by local GP
Left GSV Venous Insufficiency
No Peripheral Arterial Disease

EVLT 27\textsuperscript{th} July 2011

20\textsuperscript{th} August 2011  24\textsuperscript{th} August 2011
Ulcer Healed 10 weeks

19th October 2011

16th November 2011

Surveillance is necessary
2 years later requires EVLT left SSV

25th July 2012

6th March 2013
Patient 2

- 68 year old lady
- Atrophie Blanche
- Peripheral Arterial Disease
- Left GSV and calf perforator venous insufficiency

Grade I Compression 5 weeks
Atrophie Blanche broke down into ulcer

Arterial Duplex

Arterio-venous ulcer
GSV Endovenous Laser Ablation
1\textsuperscript{st} May 2013

2 Weeks ulcer granulating

• 20\textsuperscript{th} May 2013
7 weeks post EVLT ulcer healed

29th May 2013

19th June 2013

Ultrasound Guided Foam Sclerotherapy

25th June 2013
Ulcer remains healed 3 months post EVLT

Patient 3

- 41 year old Cleaner
- Venous Eczema
- severe Atopic Dermatitis
3 months post EVLT
New Perforator incompetence treated conservatively
4 months later Eczema flare and cellulitis
Treated conservatively with compression and antibiotics for one month

Repeat Ultrasound Guided Foam Sclerotherapy
Should Endovenous Techniques be First line treatment for leg ulcers?

YES

- Allows correction of venous insufficiency in the acute phase of the ulcer
- Allows correction of all superficial and perforator venous insufficiency (and reversal of deep venous insufficiency in the non-post-thrombotic patient)
- Procedure has extremely low morbidity and high success and is suitable for the elderly and high risk patient (far more so than surgery)
- Safer than compression in patients with mixed arterio-venous ulcers
BUT

• Ongoing commitment to surveillance, I believe, is necessary
• A multi-disciplinary approach remains paramount, however, wound care becomes far more simple once you ‘plug the dike’
• Funding must be made available as the procedure is currently not affordable for those most in need of these procedures

Do we have a new Gold Standard and a Cure for Venous Leg Ulcers?

I believe we do
85% of the time

THANKYOU