Mindful Reflections On The Management of Venous Ulceration
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“Approximately 97% of all statistics are made up.”

The Book of Useless Information
By Noel Botham and the Useless Information Society
“Honey, have you seen that book I was just looking at?”
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“Have you seen a dermatologist about it?”
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“What cannot be cured by medications is cured by the knife, what cannot be cured by the knife is cured by the searing iron, whatever this cannot cure must be considered incurable.”

460 BC Hippocrates
Prescribed compression following multiple punctures without excision of varicose veins.
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“Ulcers on the leg form a very extensive and important class of diseases . . . The treatment of such cases is generally looked upon as an inferior branch of practice; an unpleasant and inglorious task where much labour must be bestowed, and little honor gained. “

The Inquirer (1805). What are the comparative advantages of the different modes proposed for the treatment of ulcerated legs?

*Edinburgh Medical and Surgical Journal, I, 187-193.*
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Compression dressings and a blind eye
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Significance of Venous Ulceration

- Most common cause of *LE ulceration*
- Affects *0.1-0.3%* of world population
- Highest prevalence in *40-60 year olds*
- High disability rate: *4.6 million* lost work days/year
- High cost of care: *1-3% worldwide* healthcare budget
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A Few Good and Noble Physicians

- Debridment, STSG, Compression Dressings
- Great Saphenous Stripping
- Varicose Vein Excision
- Subfascial Ligation Perforating Veins-Linton Procedure
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A Few Good and Noble Physicians

– Deep Venous Reconstruction
  • valvuloplasty, venocuff
  • popliteal vein valve transplant
  • sapheno-femoral/popliteal venous bypass
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Did these interventions make a difference???

– Most healed
– Many recurred
– The rest never came back!!!
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“Just because it is broke doesn’t mean it needs to be fixed!”

Where did we go wrong?

- Assumption that visible venous abnormalities were pathologic cause of ulceration
- Blind intervention
- Surgical trauma
  - lymphatic disruption
  - Poor wound healing
  - infection
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John Gay 1855

“ The frequent coincidence of indolent ulcers and varicose veins gave rise to the belief that such ulcers are directly due to the disease in the veins; and to the practical inference that it is only necessary to obliterate the veins and the ulcers will heal. The corollary has not, however, been fully borne out by experience. “

Lancet 1868

“ When a vein was ligated for the cure of a leg ulcer...with what gratification the cicatrisation of the ulcer is hailed in almost every case. But if these cases were followed up, it was generally found that the ulcer and varicose veins have both reappeared. Are we satisfied that even the temporary benefit was due to the ligature? I confess, I am much more disposed to attribute it to the rest and other means that were simultaneously employed.”
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Compression dressings and a blind eye
Prescription for Optimal, Cost Effective Management of Venous Ulceration
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Was this all for nothing...

– Reduce surgical trauma
– Diagnostic evaluation
– Define pathophysiology
– Develop algorithms for management
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• 1990's Minimally Invasive Technology Boom
  – GSV stripping devices
  – Endoscopic interruption of perforating veins
  – Powered phlebectomy

• Advancements in Duplex Imaging Technology

• Some understanding of pathophysiology

• Limited clinical data
Ulcer healing and recurrence rates unchanged

“It wasn’t all bad. They gave me an air splint I can use in the bathtub.”
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Was *this* all for nothing...too?...No and Yes

- Ambulatory surgery
- Fewer wound related complications
- Saphenous stripper devices atraumatic
- SEPS, TRIVEX........UGH!
  - Long learning curve
  - Traumatic
  - Prolonged recovery
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Was *this* all for nothing...too?

– New approach, New devices....NEW LAYER OF MISERY

• Insurance preauthorization
• Outpatient/office based wound care
  Expensive
  Time consuming
  Eventual referral to Wound Care Center
  Surgeons dumping ground
  More clueless than we were
Sinking Under The Weight Of Our Own Technology

Broken Hippocratic Oath

Cool new tools that worked, but didn’t help

Increased cost of care

Delegated wound care to WCC
Endovenous Ablation
Game Changer of the Century

Radiofrequency- VNUS® (Closure) 1999

Laser- ELVS (AngioDynamics) 2002
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• Not just a better mousetrap
  – GSV, SSV, accessory branches, AND ICPV’s

• Improved understanding of venous insufficiency

• Correlation of clinical/duplex findings on every case
  – Detailed pre-op duplex
  – Duplex directed treatment
  – Post treatment duplex
  – Same sequence for each recurrence

• Simple varices, symptomatic varices, venous ulceration
I Have Seen A lot Of Recurrences..... And Am Glad I Did!

WHAT?

• Second correlation of clinical/duplex findings
  – Etiology of recurrences
    • Incompetent, residual distal GSV
    • Incompetent accessory or tributary branch of GSV
    • ICPV’s
Now We Are Getting Somewhere

- **Percutaneous Ablation of Perforating Veins (PAPS)**
  - Laser
    - Rapid clinical response
      - ulcer pain
      - Skin stasis changes
      - Ulcer healing
  - Foam Sclerotherapy
    - Same clinical response
    - Cheaper
    - Technically simple

- **Ablate other sources of recurrence**
Foam Sclerotherapy...It gets even better!

Recurrent Ulcer

Duplex Demonstrates Nothing

NOW WHAT!
Obsession With ICPV’s
Definition Of Insanity

Subfascial Ligation
Venous Ulceration
Local Manifestation of Systemic Problem

Terminal Interruption of Reflux Source (TIRS)
Pan Subdermal Sclerosis “PASS”

PAPS & TIRS=PASS

END ORGAN
150 Years Later....... 

• Pan Subdermal Sclerosis “PASS”
  • Same rapid clinical response seen with PAPS
    – ulcer pain
    – Skin stasis changes
    – Ulcer healing
  • Repeat PRN

PAPS

TIRS
Current Therapeutic Approach

• Treat all axial reflux
• RF, laser
• Foam (Varithena)
• Cyanoacrylate (Sapheon)

• Pan Subdermal Sclerosis “ PASS “
• Inelastic compression
  • Unna’s Boot
  • Circ-Aid

• Lifelong elastic compression
• Annual venous duplex
The Future As I See It

“Less Is Better”

• SUPERGLUE

• SOAP

• VELCRO
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Q: What’s the difference between a surgeon and a puppy?
A: If you put a puppy in a room by itself for an hour, it will probably stop whining.
2014 MID-ATLANTIC
CONFERENCE
CURRENT CONCEPTS IN
VASCULAR THERAPIES

2014

Hilton Virginia Beach Oceanfront
Virginia Beach, Virginia

APRIL 24-26

Sentara Vascular Specialists