C6: TREAT CENTRAL VENOUS OCCLUSIONS FIRST

Lowell S. Kabnick, MD, RPhS

Obstruction versus Reflux
Who Are We Talking About?

Why Treat Obstruction First

• Isolated superficial reflux RARELY causes ulceration
• Reflux may improve as obstruction resolves
• Results after tx of obstruction are independent of reflux

SOME LIKE TO RIDE THE HORSE BACKWARD

If you treat the superficial veins first for C6 disease, you may have:
Kabnick's Conclusions

S+D Disease

SR + DR

SR + IVO (C2.3)

Fix SR

SR + IV0 MTS/PTS (C2>0, C5, C6)

Fix SR

Fix IVO And SR

What You Need to Know

• Is venous dysfunction responsible for the clinical picture?

• Is venous dysfunction fully responsible?

• What is the prognosis for this patient?

• What information is needed to make the correct therapeutic decision and how to obtain this information?

• How should the therapeutic results be evaluated?

Embryology

Sinus venosus

Liver

Inf cardinal

Vein

Superior cardinal vein

Subcardinal vein

Varying iliac vein anatomy – (ascending lumbar/ iliumlumbal)

Let's Look at the Evidence We Have for the Suggested Treatment Paradigm

The Evidence for Vascular Surgery

Traditional advise: against saphenous ablation in the presence of deep venous obstruction

• The collateral contribution of saphenous vein is insignificant.

• The deep collaterals seem to be more important than the superficial venous system in bypassing the obstruction.

The prevalence of deep venous disease increases as CVD worsens and combined superficial and deep venous reflux and/or obstruction is seen with more classes C4-C6


Let's Look at Deep Venous Obstruction

- Asymptomatic limbs - Normal U/S more common
- Skin changes / ulceration - Reflux + obstruction most common

Iliofemoral Obstruction IS Bad

Delis KT, Ann Surg 2004

• 17 pts (41 limbs) with IF DVT followed 5 (1 – 23) yrs
• Hemodynamic outcome vs control limbs (APG)
• More obstruction – Outflow fraction 37% vs 49%
• More reflux – VFI 3.8 vs 1.6 ml/s
• Clinical Outcome
  • 70.7% of limbs CEAP C 3 – 6
  • Median limb VCSS score of 6 (range 1 – 16)
  • Venous claudication in 17 (43.6%) patients
  • Worse quality of life (SF-36) than control patients
    • Physcial functioning
    • Physical role
    • General health
    • Social functioning
    • Mental health

Isolated Reflux Rarely Causes Ulceration

Johnson et al, J Vasc Surg 1995

• Asymptomatic limbs - Normal U/S more common
• Skin changes / ulceration - Reflux + obstruction most common

And Isolated Superficial Reflux IS NOT so Bad

Obstruction + Reflux
Raju & Neglen, J Vasc Surg 2006

- 332 limbs with primary iliac vein lesions
  - Group 1 (n = 151) - Concurrent deep / superficial reflux
  - Group 2 (n = 181) - No reflux
- Treatment
  - Iliac stenting
  - No correction or reflux
  - Compression actively discouraged after stenting
- No difference in outcome at 2.5 yrs

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<thead>
<tr>
<th>Pain-free Limbs</th>
<th>Ulcer-free Limbs (p = .34)</th>
<th>a-free Limbs</th>
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<tbody>
<tr>
<td>82%</td>
<td>77%</td>
<td>67%</td>
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<td>47%</td>
<td>53%</td>
<td>69%</td>
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<tr>
<td>76%</td>
<td>74%</td>
<td>83%</td>
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Reflex May Resolve with Tx of Obstruction

- 246 pts (246 limbs) followed after DVT
  - US at 1 week, q 3 mo X 1 yr and then yearly
  - Mean Fu 19.9 (1 - 188) mo
- 1423 venous segments (CFV, GSV, PFV, FV, PV, PTV)
- Segments stratified by initial thrombosis

In Conclusion

- Would you Rx DV in C1, C2, C3 before Rx SV?
- Would you Rx DV with low VCSS or PRO?
- Would you Rx DVR before Rx SV in C1, C2, C3, C4a, C5, C6?
- Probably Not
- Yes You Should

CONCLUSION

S+D Disease
SR + DR
SR + IVO (C2.3)
Fix SR
SR + IVO MTS/PTS (C4a-b,C5,C6)
Fix SR
Fix IVO +/- SR