

EVIDENCE BASED STATEMENT

DOMAIN 3, Statement 2

TOPIC: "surgical & thermal tumescent techniques for GSV reflux treatment "

SEARCH TERMS & SOURCES

(great saphenous vein) AND (treatment)

INCLUSION CRITERIA

- Lower limb only
- Reviews
- Publication < 10 years, only ENG

SEARCH RESULT BEFORE - AFTER SELECTION

97/43

PERTINENT LITERATURE NOT IDENTIFIED BY THE LITERATURE SEARCH

1. Bellmunt-Montoya S, Escribano JM, Pantoja Bustillos PE, et al. CHIVA method for the treatment of chronic venous insufficiency. Cochrane Database Syst Rev. 2021 Sep 30;9(9):CD009648.
2. Giancesini S, Obi A, Onida S, et al. Global guidelines trends and controversies in lower limb venous and lymphatic disease: Narrative literature revision and experts' opinions following the vWINTER international meeting in Phlebology, Lymphology & Aesthetics, 23-25 January 2019. Phlebology. 2019 Sep;34(1 Suppl):4-66.
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4. Sutzko DC, Andraska EA, Obi AT, et al. Age is not a barrier to good outcomes after varicose vein procedures. J Vasc Surg Venous Lymphat Disord. 2017;5(5):647-657

EVIDENCE BASED STATEMENT

Domain 3; Statement 2

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2. Cosín Sales O. Ultrasound-guided interventional radiology procedures on veins. *Radiologia (Engl Ed)*. 2022 Jan-Feb;64(1):89-99.
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7. Lomazzi C, Bissacco D, Logan MS, et al. Risk factors for saphenous vein recanalization after endovenous radiofrequency ablation. *J Cardiovasc Surg (Torino)*. 2021 Oct;62(5):427-434.
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9. Siribumrungwong B, Wilasrusmee C, Orrapin S, et al. Interventions for great saphenous vein reflux: network meta-analysis of randomized clinical trials. *Br J Surg*. 2021 Apr 5;108(3):244-255.
10. Erben Y, Vasquez I, Li Y, Gloviczki P, et al. A multi-institutional review of endovenous thermal ablation of the saphenous vein finds male sex and use of anticoagulation are predictors of long-term failure. *Phlebology*. 2021 May;36(4):283-289.
11. Richards T, Anwar M, Beshr M, Davies AH, Onida S. Systematic review of ambulatory selective variceal ablation under local anesthetic technique for the treatment of symptomatic varicose veins. *J Vasc Surg Venous Lymphat Disord*. 2021 Mar;9(2):525-535.
12. Malskat WSJ, Engels LK, Hollestein LM, et al. Commonly Used Endovenous Laser Ablation (EVLA) Parameters Do Not Influence Efficacy: Results of a Systematic Review and Meta-Analysis. *Eur J Vasc Endovasc Surg*. 2019 Aug;58(2):230-242.
13. Tan MKH, Sutanto SA, Onida S, Davies AH. The Relationship Between Vein Diameters, Clinical Severity, and Quality of Life: A Systematic Review. *Eur J Vasc Endovasc Surg*. 2019 Jun;57(6):851-857.
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EVIDENCE BASED STATEMENT

Domain 3; Statement 2

IDENTIFIED REFERENCES

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EVIDENCE BASED STATEMENT

Domain 3; Statement 2

IDENTIFIED REFERENCES

33. Pittaluga P, Chastanet S. Persistent incompetent truncal veins should not be treated immediately. *Phlebology*. 2015 Mar;30(1 Suppl):98-106.
34. Balint R, Vizsy L, Farics A, Balint IB. The role of cryosurgery in the treatment of the incompetent great saphenous vein. *Int Angiol*. 2016 Feb;35(1):78-83.
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EVIDENCE BASED STATEMENT

Domain 3; Statement 2

TEXT FOR INCLUSION IN THE DOCUMENT

DOMAIN 3, Statement 2, TOPIC: “**surgical & thermal tumescent techniques for GSV reflux treatment**”

International guidelines generally agree in indicating thermal tumescent techniques for great saphenous vein reflux treatment over traditional surgical stripping or other devices. Nevertheless, these conclusions are mainly following the evidence regarding the anatomical recurrence rate and mini-invasive performance, rather than the taking into consideration also quality of life, patient reported outcomes and cost-efficacy.

[Gianesini S, Obi A, Onida S, et al. **Global guidelines trends and controversies in lower limb venous and lymphatic disease: Narrative literature revision and experts' opinions following the vWINTER international meeting in Phlebology, Lymphology & Aesthetics, 23-25 January 2019. Phlebology. 2019 Sep;34(1 Suppl):4-66].**

A recent review showed the overlapping anatomical outcome in the comparison of stripping vs thermal tumescent. Interestingly, these last ones were not superior and potentially significantly inferior to ultrasound guided foam sclerotherapy in terms of generic quality of life.

Future recommendations are encouraged to take into consideration several factors apart just the reflux reappearance, such as patients' values and preferences, anatomic considerations and surgical expertise.

[Farah MH, Nayfeh T, Urtecho M, et al. **A systematic review supporting the Society for Vascular Surgery, the American Venous Forum, and the American Vein and Lymphatic Society guidelines on the management of varicose veins. J Vasc Surg Venous Lymphat Disord. 2021 Aug 24:S2213-333X(21)00421-2].**

The Cochrane 2021 analysis on the specific treatment of the great saphenous vein pointed out that the conclusions are limited by the small number of data for the different head to head comparisons and the lack of homogeneity in outcome measures. All modalities showed overlapping technical success. No differences were reported in reflux recurrence, except for a possible long-term benefit of radiofrequency ablation compared to laser or stripping.

*[Whing J, Nandhra S, Nesbitt C, Stansby G. **Interventions for great saphenous vein incompetence. Cochrane Database Syst Rev. 2021 Aug 11;8(8):CD005624].**

The importance of not relying just on vein caliber has been recently demonstrated by the analysis of the correlation between vein diameters, clinical severity and quality of life. Vein caliber is a poor predictor of health related quality of life, therefore it should not be used as single parameter to indicate eventual venous intervention. Diameters are a poor predictor of HRQoL, with no relationship to patients' perceived impact of chronic venous disease. As such, vein diameter should not be used as a measure to decide who needs venous intervention.

[Tan MKH, Sutanto SA, Onida S, Davies AH. **The Relationship Between Vein Diameters, Clinical Severity, and Quality of Life: A Systematic Review. Eur J Vasc Endovasc Surg. 2019 Jun;57(6):851-857].**

Sutzko DC, Andraska EA, Obi AT, et al. Age is not a barrier to good outcomes after varicose vein procedures. J Vasc Surg Venous Lymphat Disord. 2017;5(5):647-657

[**Age over 65 demonstrated not to be a barrier for the good vein procedure outcome in terms of CEAP class, Venous Clinical Severity Score and Patient Reported Outcome scores.**]

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Domain 3; Statement 2

STATEMENT FOR PUBLIC EVIDENCE-BASED AWARENESS

DOMAIN 3, Statement 2

No significant difference in reflux reappearance risk is reported following surgical rather than endovenous thermal ablation of the great saphenous vein.
No device has a whole performance better than the others.

SELECTED REFERENCES

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5. Age over 65 demonstrated not to be a barrier for the good vein procedure outcome in terms of CEAP class, Venous Clinical Severity Score and Patient Reported Outcome scores

IDENTIFIED LITERATURE BIAS

Lack of homogeneous hemodynamic data collection and similar outcome measures

SUGGESTED NEXT LINES OF RESEARCH

Mid-long term homogenous outcome measures in homogenous hemodynamic study populations