

EVIDENCE BASED STATEMENT

DOMAIN 3, Statement 5

TOPIC: Steam ablation clinical and anatomical performance.

SEARCH TERMS & SOURCES

((steam) AND (vein))

INCLUSION CRITERIA

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

SEARCH RESULT BEFORE - AFTER SELECTION

12/4

PERTINENT LITERATURE NOT IDENTIFIED BY THE LITERATURE SEARCH

1. Korschake W, Tembulatow M, Lutze S, et al. Improvement of dynamic venous function after thermal ablation with steam vein occlusion - 6-weeks and 1-year follow-up after 167 treatments. Clin Hemorheol Microcirc. 2022;80(3):291-305.
2. van den Bos RR, Malskat WS, De Maeseneer MG, et al. Randomized clinical trial of endovenous laser ablation versus steam ablation (LAST trial) for great saphenous varicose veins. Br J Surg. 2014 Aug;101(9):1077-83
3. Thomis S, Verbrugghe P, Milleret R, et al. Steam ablation versus radiofrequency and laser ablation: an in vivo histological comparative trial. Eur J Vasc Endovasc Surg. 2013 Sep;46(3):378-82.

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IDENTIFIED REFERENCES

1. Whing J, Nandhra S, Nesbitt C, Stansby G. Interventions for great saphenous vein incompetence. Cochrane Database Syst Rev. 2021 Aug 11;8(8):CD005624.
2. Ontario Health (Quality). Nonthermal Endovenous Procedures for Varicose Veins: A Health Technology Assessment. Ont Health Technol Assess Ser. 2021 Jun 4;21(8):1-188.
3. Whiteley MS. Glue, steam and Clarivein--Best practice techniques and evidence. Phlebology. 2015 Nov;30(2 Suppl):24-8.
4. van den Bos RR, Proebstle TM. The state of the art of endothermal ablation. Lasers Med Sci. 2014 Mar;29(2):387-92. doi: 10.1007/s10103-013-1448-5.

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TEXT FOR INCLUSION IN THE DOCUMENT

(300 words, not counting the references)

DOMAIN 3, Statement 5, TOPIC: “**Steam ablation clinical and anatomical performance.**”

In 2014 a randomized comparative trial demonstrated not inferiority of endovenous steam ablation versus endovenous laser ablation in reflux recurrence. AVVQ, EQ-5D™ and EQ VAS improved similarly in the two groups. It must be noted that the comparison had a follow up of just 1 year.

[van den Bos RR, Malskat WS, De Maeseneer MG, et al. Randomized clinical trial of endovenous laser ablation versus steam ablation (LAST trial) for great saphenous varicose veins. Br J Surg. 2014 Aug;101(9):1077-83]

A more recent publication confirmed the satisfactory performance of steam ablation in patient’s symptoms and venous hemodynamics, but always with a 1 year follow up only.

***[Konschake W, Tembulatow M, Lutze S, et al. Improvement of dynamic venous function after thermal ablation with steam vein occlusion - 6-weeks and 1-year follow-up after 167 treatments. Clin Hemorheol Microcirc. 2022;80(3):291-305].**

Up to our knowledge literature reporting longer than 1 year follow up was reported only in languages different from English.

A Dutch publication reported a 5 year follow up and a Norwegian one a comparative trial against stripping.

[van den Bos RR, Malskat WSJ. Stoomablatie van varices, 5 jaar later [Steam ablation of varicose veins 5 years later]. Ned Tijdschr Geneesk. 2020 Jul 30;164:D5105].

[Næs AL, Halsteinli V, Seternes A. Steam ablation versus stripping of great saphenous varicose veins. Tidsskr Nor Laegeforen. 2019 Mar 6;139(5). Norwegian, English].

Properly collected long term data are needed before including steam ablation in related guidelines.

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

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STATEMENT FOR PUBLIC EVIDENCE-BASED AWARENESS

DOMAIN 3, Statement 5

“Ablation of the great saphenous vein by steam is safe but more scientific data are needed before recommending it in place of laser or radiofrequency treatment.”

SELECTED REFERENCES

1. van den Bos RR, Malskat WS, De Maeseneer MG, et al. Randomized clinical trial of endovenous laser ablation versus steam ablation (LAST trial) for great saphenous varicose veins. *Br J Surg.* 2014 Aug;101(9):1077-83.
2. *Konschake W, Tembulatow M, Lutze S, et al. Improvement of dynamic venous function after thermal ablation with steam vein occlusion - 6-weeks and 1-year follow-up after 167 treatments. *Clin Hemorheol Microcirc.* 2022;80(3):291-305.
3. van den Bos RR, Malskat WSJ. Stoomablatie van varices, 5 jaar later [Steam ablation of varicose veins 5 years later]. *Ned Tijdschr Geneeskd.* 2020 Jul 30;164:D5105.
4. Næs AL, Halsteinli V, Seternes A. Steam ablation versus stripping of great saphenous varicose veins. *Tidsskr Nor Laegeforen.* 2019 Mar 6;139(5). Norwegian, English
5. Whing J, Nandhra S, Nesbitt C, Stansby G. Interventions for great saphenous vein incompetence. *Cochrane Database Syst Rev.* 2021 Aug 11;8(8):CD005624

IDENTIFIED LITERATURE BIAS

Short follow up data, literature not in English

SUGGESTED NEXT LINES OF RESEARCH

Longer than 5 years follow up comparative data