

EVIDENCE BASED STATEMENT

DOMAIN **11**, Statement **06**

TOPIC: “Sclerotherapy and Laser for C1 patients indications”

SEARCH TERMS & SOURCES

((indications)) AND (teleangectasia) AND ((laser) OR (sclerotherapy))

INCLUSION CRITERIA

- Lower limb only
- Systematic Reviews, Meta-Analysis, Reviews
- Publication < 10 years, only ENG

SEARCH RESULT BEFORE - AFTER SELECTION

5/3

PERTINENT LITERATURE NOT IDENTIFIED BY THE LITERATURE SEARCH

1. De Maeseneer MG, Kakkos SK, Aherne T, et al. - European Society for Vascular Surgery (ESVS) 2022 Clinical Practice Guidelines on the Management of Chronic Venous Disease of the Lower Limbs. Eur J Vasc Endovasc Surg. 2022 Feb;63(2):184-267.
2. Nakano LC, Cacione DG, Baptista-Silva JC, Flumignan RL. Treatment for telangiectasias and reticular veins. Cochrane Database Syst Rev. 2021 Oct 12;10(10):CD012723.
3. Miyake RK, Chi YW, Franklin IJ, Giancesini S. State of the art on cryo-laser cryo-sclerotherapy in lower limb venous aesthetic treatment. J Vasc Surg Venous Lymphat Disord. 2020 Sep;8(5):893-895
4. Giancesini S, Obi A, Onida S, et al. Global guidelines trends and controversies in lower limb venous and lymphatic disease. Phlebology. 2019 Sep;34(1 Suppl):4-66.
5. Crippa A, Menegatti E, Zini F, et al. Safety and short-term efficacy of telangiectasia treatment by means of an innovative combination of 532 and 808 nm transdermal diode laser. Phlebology. 2019 Dec;34(10):715-720.
6. Gibson K, Gunderson K. Liquid and Foam Sclerotherapy for Spider and Varicose Veins. Surg Clin North Am. 2018 Apr;98(2):415-429.
7. Watson JJ, Mansour MA. Cosmetic sclerotherapy. J Vasc Surg Venous Lymphat Disord. 2017 May;5(3):437-445.
8. Parlar B. Treatment of lower extremity telangiectasias in women by foam sclerotherapy vs. Nd:YAG laser: a prospective, comparative, randomized, open-label trial. J Eur Acad Dermatol Venereol. 2015 Mar;29(3):549-54
9. Meesters AA, Pitassi LH, Campos V, Wolkerstorfer A, Dierickx CC. Transcutaneous laser treatment of leg veins. Lasers Med Sci. 2014 Mar;29(2):481-92.
10. Lupton JR, Alster TS, Romero P. Clinical comparison of sclerotherapy versus long-pulsed Nd:YAG laser treatment for lower extremity telangiectases. Dermatol Surg. 2002 Aug;28(8):694-7.

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IDENTIFIED REFERENCES

International guidelines generally agree in considering sclerotherapy as the first line indication for CEAP C1 patients treatment, even if heterogeneity exists in the recommendation grade.

A general agreement is found in the need of proper pre-treatment history and ultrasound scanning performance.

Transdermal laser can be taken into consideration in case of allergy to the sclerosant, previous sclerotherapy side effects, needle-phobia. The skin type, the size and depth of the vessel is guiding the choice of the wavelength, of the spot size and of the radiant exposure.

Laser treatment can be effective but no solid data demonstrate a superiority to sclerotherapy injection, while its performance is associated with potential significant periprocedural pain

***[Gianesini S, Obi A, Onida S, et al. Global guidelines trends and controversies in lower limb venous and lymphatic disease. *Phlebology*. 2019 Sep;34(1 Suppl):4-66]**

A new trend toward multi-wavelengths combination showed preliminary valuable outcomes to be confirmed in long follow up and properly randomized studies.

[Crippa A, Menegatti E, Zini F, et al. Safety and short-term efficacy of telangiectasia treatment by means of an innovative combination of 532 and 808 nm transdermal diode laser. *Phlebology*. 2019 Dec;34(10):715-720].

A synergy between laser and sclerotherapy has been standardized under the method Crio Laser Crio Sclerotherapy (CLACS) with preliminary excellent aesthetic outcomes, to be validated in properly conducted randomized comparative trials.

[Miyake RK, Chi YW, Franklin IJ, Gianesini S. State of the art on cryo-laser cryo-sclerotherapy in lower limb venous aesthetic treatment. *J Vasc Surg Venous Lymphat Disord*. 2020 Sep;8(5):893-895].

A recent Cochrane revision reported no superiority of any sclerosant compared to another or to laser. Low evidence suggest polidocanol might cause less pain, sodium tetradecyl sulfate more hyperpigmentation and matting.

[Nakano LC, Cacione DG, Baptista-Silva JC, Flumignan RL. Treatment for telangiectasias and reticular veins. *Cochrane Database Syst Rev*. 2021 Oct 12;10(10):CD012723].

Properly designed studies are needed to obtain a more evidence-based and reliable conclusion.

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TEXT FOR INCLUSION IN THE DOCUMENT

DOMAIN 11, Statement 06, TOPIC: "Sclerotherapy and Laser for C1 patients indications"

1. Meesters AA, Pitassi LH, Campos V, et al. Transcutaneous laser treatment of leg veins. *Lasers Med Sci.* 2014 Mar;29(2):481-92.
2. Weiss MA, Hsu JT, Neuhaus I, Sadick NS, Duffy DM. Consensus for sclerotherapy. *Dermatol Surg.* 2014 Dec;40(12):1309-18.
3. Reich-Schupke S, Leiste A, Moritz R, et al. Sclerotherapy in an undetected pregnancy - a catastrophe? *Vasa.* 2012 Jul;41(4):243-7.

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STATEMENT FOR PUBLIC EVIDENCE-BASED AWARENESS

DOMAIN 11, Statement 06

“Sclerotherapy is the first-line treatment for leg anti-aesthetic veins.
Specific lasers use can be taken into consideration for vessel smaller than 1 mm.”

SELECTED REFERENCES

1. Giancesini S, Obi A, Onida S, et al. Global guidelines trends and controversies in lower limb venous and lymphatic disease. *Phlebology*. 2019 Sep;34(1 Suppl):4-66
2. Crippa A, Menegatti E, Zini F, et al. Safety and short-term efficacy of telangiectasia treatment by means of an innovative combination of 532 and 808 nm transdermal diode laser. *Phlebology*. 2019 Dec;34(10):715-720
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identified LITERATURE BIAS

Heterogeneous data collection in terms of sclerotherapy and laser methodology and objective outcome measure

SUGGESTED NEXT LINES OF RESEARCH

Different sclerosants and lasers head to head comparison in homogeneous study populations