

FROM THE FAMILY PRACTICE INQUIRIES NETWORK

What treatments are effective for varicose veins?

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■ EVIDENCE-BASED ANSWER

For larger trunk varicose veins, as in the saphenous vein, therapeutic options include conservative measures (such as leg elevation and compression stockings), injection sclerotherapy, and surgical vein ligation, with or without stripping. Long-term outcomes appear superior with surgical treatment.

For mid-sized reticular veins and spider telangiectasias, several options are available, including sclerotherapy, laser ablation, and thermal ablation. However, no randomized trials have compared the relative effectiveness of these treatments.

Venotonic medications (primarily plant-derived and synthetic flavonoids, such as horse chestnut seed extract, that improve venous tone) provide symptom relief. Head-to-head comparisons are needed to identify the most efficacious therapies (strength of recommendation: **C**, based on case series and extrapolations from small trials.)

■ EVIDENCE SUMMARY

Graduated elastic compression stockings improve lower-extremity hemodynamics (including reflux and residual volume measured by color flow duplex scanning) in patients with varicosities, and can improve symptoms such as swelling, discomfort, and leg tightness.^{1,2}

A Cochrane review concluded that existing evidence supports the use of sclerotherapy for recurrent varicose veins after surgery and for relatively minor “thread” veins.³ Data did not show that any particular type of sclerosant or pressure dressing or duration of post-treatment compression have significant effect on outcomes, such as disappearance of varicosities and cosmetic improvement.³

A Cochrane protocol is in progress regarding comparison of the outcomes of surgery and sclerotherapy.⁴ Few randomized trials have compared surgery and sclerotherapy.

Belcaro reported results of a 10-year randomized trial including 121 subjects, 96 of whom completed the study.⁵ Surgery consisted of ligation of the saphenopopliteal junction without stripping. At 10 years, 16.1% of patients receiving surgery plus sclerotherapy had distal venous incompetence (assessed with color duplex scanning and ambulatory venous pressure measurement), compared with 36.4% of those who underwent surgery alone and 43.8% of those who received sclerotherapy alone. The authors concluded that long-term outcomes (defined as saphenofemoral junction competence) are superior with strategies that included surgery, but at greater cost.

Beresford and colleagues also concluded that surgery lessened the likelihood of additional treatment.⁶ Another randomized trial showed that saphenous vein stripping reduced by two thirds the need for reoperation due to recurrent saphenofemoral incompetence, compared with saphenofemoral junction ligation alone.⁷

A meta-analysis studied the effectiveness of venotonic medications (such as rutoside, flunarizine, and dihydroergotamine) in chronic venous insufficiency.⁸ These agents significantly reduced pain, leg heaviness, cramps, and paresthesias. However, a Cochrane Collaboration reviewer questioned the validity of pooling results from this heterogeneous group of studies into a single meta-analysis.⁹

A Cochrane Review did find that horse chestnut seed extract significantly improves leg pain, edema, pruritus, and lower leg volume and circumference, but suggests that larger randomized trials are needed to establish conclusively this agent's efficacy.¹⁰

■ RECOMMENDATIONS FROM OTHERS

A recent clinical review indicated that patients whose main symptoms are swelling or aching can be treated with compression stockings alone; trunk varicosities should be treated with saphenofemoral or saphenopopliteal ligation, plus stripping of the long saphenous vein for long saphenous varicosities.¹¹ They suggest that sclerotherapy should be reserved for varicosities that persist after surgery.

The Venous Insufficiency Epidemiologic and Economic Studies (VEINES) program recommends sclerotherapy for telangiectasias and reticular veins, and surgery for saphenous varicosities.¹² However, they noted the need for randomized trials to compare therapies.

CLINICAL COMMENTARY

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Choosing the best treatment for varicose veins can be complicated. Symptoms and the type of varicose veins (truncal varices, reticular varices, or telangiectasia) can guide the clinician in selecting therapy. Asymptomatic varicosities can usually be observed without treatment. Patients with symptomatic varicosities may be treated conservatively before referring for invasive treatment.

Surgery is probably the best treatment for truncal varices, whereas sclerotherapy is better

for reticular veins or telangiectasia. The long-term risks and benefits of newer modalities such as laser and thermal ablation need further evaluation. Regardless of the treatment chosen, patients with varicose veins should first undergo a thorough investigation.

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