

Evidence-based treatment of varicose veins: the first European guidelines on sclerotherapy in chronic venous disorders

Sclerotherapy of varicose veins with liquid or foam sclerosants is an efficient and safe therapeutic option. The new guidelines on sclerotherapy, adopted in May 2012 by 23 European phlebology societies and now officially published, provide for the first time evidence-based recommendations on sclerotherapy that are valid throughout Europe.¹ They take into account the extensive scientific findings on the effectiveness of liquid and foam sclerosants and give practical advice on how to perform sclerotherapy. The aim of these guidelines is to standardise and improve the quality of vascular care in Europe as well as to support physicians in their choice of treatment.

Sclerotherapy is defined as the targeted elimination of varicose veins by the injection of a sclerosant. The functional results are equivalent to the surgical removal of a varicose vein. Sclerotherapy is the method of choice for the treatment of spider veins and reticular varicose veins, achieving a more than 90% improvement. In the treatment of large varicose veins, such as truncal veins, foam sclerotherapy is a good, cost-effective alternative to surgery. Until recently there were no international guidelines, even though sclerotherapy is a widely performed procedure. The German Society of Phlebology drew up guidelines on the sclerotherapy of varicose veins some years ago. These guidelines were previously accepted as state-of-the-art in many other European countries, as most had no national guidelines of their own. For this reason, the German Society of Phlebology took the initiative and invited representatives of the professional bodies from each European country to a guideline consensus meeting in Mainz, Germany, last year.

¹ Rabe E, Breu F, Cavezzi A, Coleridge Smith PC, Frullini A, Gillet J, Guex J, Hamel-Desnos C, Kern P, Partsch B, Ramelet A, Tessari L, Pannier F; for the Guideline Group. European guidelines for sclerotherapy in chronic venous disorders. *Phlebology* 0268355513483280; 0:1-17. Published online before print 4 April 2013; doi: 10.1177/0268355513483280.

Harmonised standards for successful sclerotherapy

Like the German guidelines, the European guidelines, which have now been published, basically recommend sclerotherapy for all types of varicose veins: From spider veins to tributary and saphenous varicose veins, as well as residual and recurrent varicose veins, periulcerous veins and venous malformations. Contraindications include known allergy to the sclerosant, polidocanol, local infection in the area of sclerotherapy and prolonged immobility. For the best functional and aesthetic results, a proper diagnostic evaluation should always be carried out prior to treatment. According to the guidelines, this evaluation includes Doppler or duplex ultrasound scanning in addition to the anamnesis and the clinical examination.

Indications for polidocanol

Sclerotherapy can be carried out with both liquid and foam sclerosants, whereby Aethoxysklerol[®], with the active pharmaceutical ingredient polidocanol, is the one most commonly used in Germany and many other European countries. The guidelines contain comprehensive tables that give recommendations on the choice of sclerosant concentration and dosage for the various indications. In addition, they provide the attending physician with a decision-making aid for selecting the optimal therapeutic option. The European guidelines also consider liquid sclerotherapy to be the treatment of choice for spider veins and reticular varicose veins. In contrast, foam sclerotherapy has proved to be more effective for saphenous varicose veins, venous malformations and recurrent varicose veins. Foam should be produced with an appropriate syringe system and injected promptly. Air is recommended as the gas component for foam production or a mixture of CO₂ and O₂.

Procedures and follow-up

Venepuncture and injection of spider veins and reticular varicose veins are performed with the patient lying down. The sclerosant is injected slowly making sure that the cannula is lying within the vein. With larger calibre varicose veins the sclerosant is injected using a syringe with the needle attached or via a butterfly or other catheters; foam sclerotherapy should be carried out under ultrasound guidance. As a rule, affected veins are injected from the proximal to the distal points of incompetence and from large varicose veins to small ones.

The results of both liquid and foam sclerotherapy are improved by compression, so a compression stocking or bandage should be worn for several days up to a few weeks after the injection, depending on the indication.² Follow-up examination is recommended and allows the physician to assess the therapeutic success clinically and/or with ultrasound.

² Zarca C, Bailly C, Gachet G, Spini L. ClassMouse 1 study: compression hosiery and foam sclerotherapy. *Phlébologie* 2012; 65:11-20.