

Sclerotherapy of spider veins

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Sclerotherapy is the treatment of first choice for small-calibre varicose veins (reticular veins, spider veins).

Carried out correctly, sclerotherapy is an efficient form of treatment, with few side effects. Even so, there may be immediate or delayed side effects such as allergic reactions, skin necrosis, excessive sclerotic reactions, thrombophlebitis, pigmentation and matting, as well as less common complications that must be explained to the patient beforehand. Details can be found in the guideline on sclerotherapy of varicose veins (1).

The guideline (1) and the summary of product characteristics for polidocanol

(Aethoxysklerol®), the sclerosant used, give precise information on the concentration and maximum volume to be used per injection.

Conflict of interest

The authors declare that they have no conflicts of interest.

Ethical guidelines

No studies on humans or animals were carried out in the preparation of this manuscript

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**Fig. 1a**

Liquid sclerotherapy of spider veins with 0.5% polidocanol. It is best to use a 1 ml syringe. Do not use more than 0.1–0.2 ml sclerosant per injection. Apply eccentric compression, e.g. with cotton-wool rolls, immediately after the injection. The literature is not consistent on the application and duration of compression (bandages/stockings). In the case of spider veins and reticular veins, compression applied for three weeks results in less pigmentation and fewer haematomas and is more effective (see 2–5).

**Fig. 1b**

Foam sclerotherapy of reticular veins with 0.5% polidocanol (1 part sclerosant + 3 parts air, double syringe method [DSS]). As it lies very superficially, this vessel can be injected under direct vision.

**Fig. 1c**

Same area as 1b but the sclerosed varicose vein is no longer visible after injection of the foam. Contrary to the procedure for liquid sclerotherapy, do not apply eccentric compression immediately but wait for about 1 minute after injecting the foam.

Fig. 2a
Sclerothrombus and hyperpigmentation after liquid sclerotherapy two weeks previously.

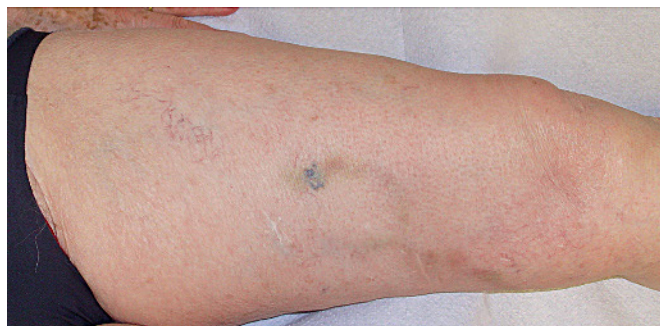


Fig. 2b
Stab incision of the sclerothrombus with a needle to reduce hyperpigmentation.



Fig. 2c
Manual expression of the thrombus.



Fig. 2d
Expressed thrombus. Subsequently, eccentric compression can be carried out again for about 12–24 hours. It is recommended that the patient wears a compression stocking for about three weeks (see 2–5).



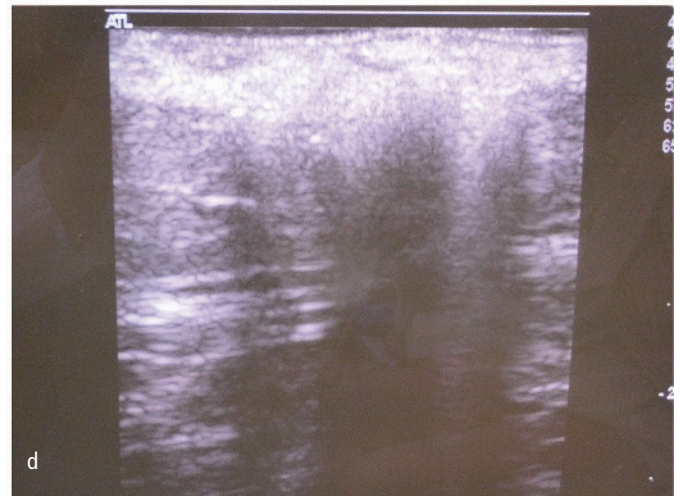
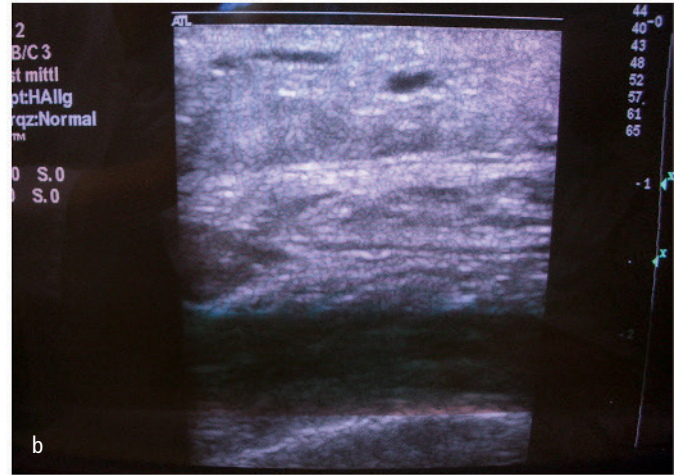


Fig. 3

a) Reticular veins and cushion of reticular veins in a patient on long-term anticoagulant therapy (vitamin K antagonist); b) Ultrasound appearance of the reticular veins shown in 3a, using a 15 MHz transducer; c) The reticular varicose veins at risk of rupture (see 3a and 3b) are treated with foam sclerotherapy (1% polidocanol) under ultrasound guidance; d) Ultrasound appearance of the sclerotherapy shown in 3c, with highly echogenic intravascular foam and posterior acoustic shadowing. Ultrasonography can make the venepuncture of feeder vessels considerably easier when there are extensive reticular veins; e) Blanching of the sclerosed area can be seen immediately after foam sclerotherapy. Venous spasm can also be observed in some cases.

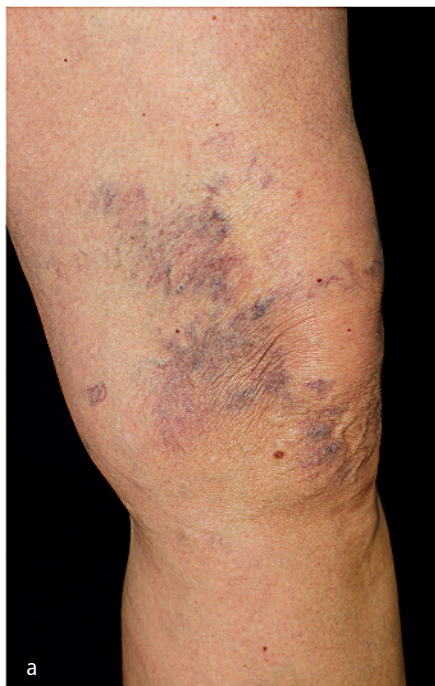


Fig. 4a

An unwanted effect of sclerotherapy, which may also occur after surgical procedures, is the appearance of new, mostly very fine telangiectasias, known as 'matting'.

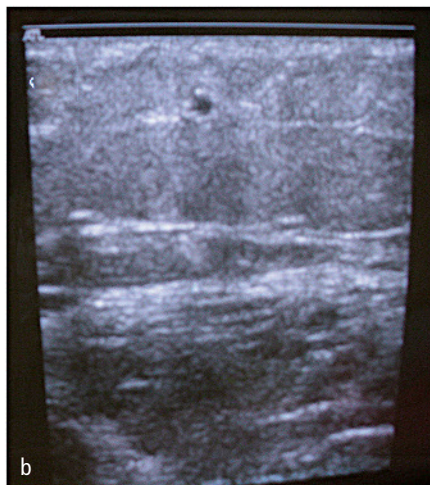


Abb. 4b

The treatment of choice for matting is once again sclerotherapy. In each case, it is extremely useful to identify the feeder vessel with ultrasound and target it in the sclerotherapy. A 15 MHz transducer was used to demonstrate the main feeder vein shown here. Depending on the extent of the matting, several sclerotherapy sessions are usually necessary for elimination.

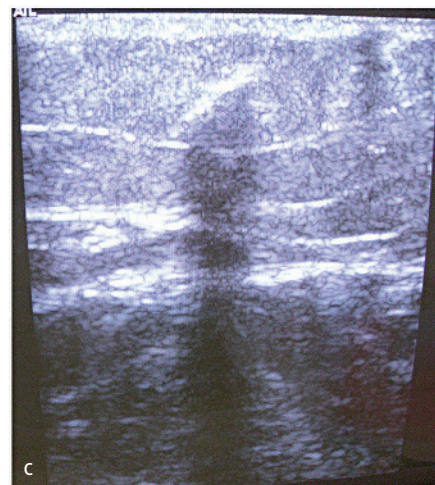


Fig. 4c

Foam sclerotherapy of the feeder vein shown in Figure 4b, with 0.5% polidocanol foam (1+3 using the DSS method) under ultrasound guidance (longitudinal section). In the case shown here, the foam was produced with 1 ml syringes and injected through a 27 G needle. The highly echogenic foam can be seen with posterior acoustic shadowing.