

Problems with sclerotherapy can lead to successful litigation

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➡ A RANGE OF TREATMENTS are in use for the management of varicose veins in the UK and throughout the world. Injection treatment for varicose veins – sclerotherapy – has a 200-year history, but remains a useful method of management. Modern enhancements of the method have brought new life to the treatment. They include injecting the sclerosant drugs as a foam and using ultrasound imaging guidance to deliver the treatment more accurately.

How does sclerotherapy work?

Injections for varicose veins work by introducing a compound which destroys the lining of the vein, but not any other part of the vein. The endothelial lining is essential to prevent blood sticking to the inside of the vein.

The two drugs licensed for use in the treatment in the UK are detergents and dissolve the lining cells of the veins within about 20 seconds of injection. The vein is blocked by returning blood, which undergoes thrombosis. Veins treated in that way are reabsorbed over a period of time, varying from weeks to months depending on the size of the vein.

The aftercare of the treatment includes application of a compression bandaging or stocking to the leg. The treatment is commonly used for the lumpy varicose veins as well as for cosmetic veins (thread veins). Different techniques of injection are used for large veins and small veins.

Problems with sclerotherapy

Robust evidence of efficacy of the treatment is available for the use of injection of foamed sclerosant into large varicose veins. Sclerotherapy for thread veins has a long provenance but limited scientific data to support particular methods of use of the treatment. However, effective strategies of use of sclerotherapy have been summarised in consensus documents, which reflect current standards of treatment and serve as references for good clinical practice.

Sclerotherapy leaves all successfully treated veins in the leg before they are completely reabsorbed. As a result, the treated region looks a little bruised and cosmetically unsatisfactory immediately after sclerotherapy. That improves rapidly as all the treated veins are absorbed over the ensuing few weeks or months. Occasionally an inflammatory process occurs, known as phlebitis, leading to redness and tenderness of some of the treated veins. Those expected adverse events should be documented in written information provided to patients prior to treatment.

Less common problems include persistent brown discolouration of the skin and the formation of thread veins in regions of sclerotherapy for large varicose veins. Rare problems following sclerotherapy include severe allergic reactions, heart attack and stroke, according to advice from the National Institute for Health and Care Excellence (NICE).

Complications of treatment leading to litigation

Varicose veins are widely treated by a range of practitioners, although vascular surgeons most frequently manage the problem. The most frequent complaints from patients concern the cosmetic outcome of treatment. Residual varicose veins may persist following an initial treatment and can be readily removed by sclerotherapy during follow-up.

Curiously, complaints commonly arise from thread vein treatment, despite those being the smallest veins. Many experienced practitioners in the field regard thread veins as one of the most difficult clinical problems to treat successfully. That is compounded by the fact that treatments are sometimes

done by aesthetic practitioners or nurses with very limited experience. Patients may grumble about the aesthetic outcome of treatment, but it is relatively uncommon for it to lead to litigation.

More serious problems arise when a practitioner uses an inappropriate technique or solution for a particular type of vein. The sclerosant drugs are available in a wide range of concentrations intended for use in different sizes of vein. The thread veins in the skin on the legs require very low concentrations of drug, otherwise long-lasting skin pigmentation or ulceration may occur. The sclerosant must be injected into the vein to be effective and high concentrations of strong sclerosant injected outside the vein lead to protracted skin ulceration. Inadvertent injection of an artery leads to severe and extensive damage to the skin and other tissues.

Some examples of poor outcome

Fig 1: In this patient thread veins and small blue veins in the skin of the calf were injected with a much stronger solution than was appropriate about four months prior to the photograph. Intense brown bruising of the skin persists in a number of areas.

The sclerosant produced an ulcer in the skin due to destruction of the skin. The ulcer remains unhealed. That type of small vein should have been injected with a very low concentration of the sclerosant drug in order avoid skin pigmentation and ulceration.



Fig 1



Fig 2

Fig 2: A larger varicose vein lying beneath the skin was injected with a strong solution of sclerosant drug. Unfortunately, the drug was injected outside the vein which was the intended target of the treatment.

When injected outside the vein persistent skin ulceration lasting many months is the result. This ulcer arose from a faulty injection strategy which allowed the drug to be injected in the wrong place.

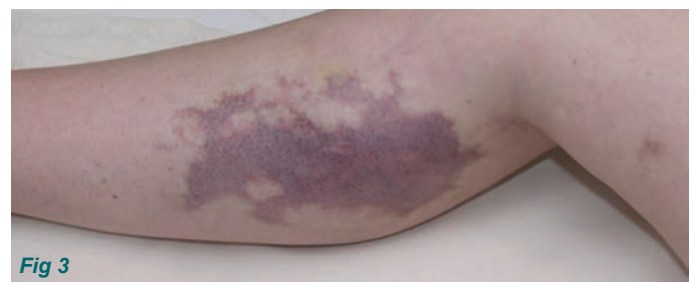


Fig 3

Fig 3: In this patient, thread veins and small blue veins in the skin of the calf were injected with an appropriately low concentration of the

sclerosant drug. Unfortunately, the injection was delivered into a small artery in the skin rather than a vein. That leads to a severe inflammatory process in the skin: a problem known as embolia cutis medicamentosa, or eponymously as Nicolau syndrome. The inflammation is very painful but slowly subsided without permanent damage to the skin over a number of months.

Fig 4: Large varicose veins were treated in this patient using ultrasound-guided foam sclerotherapy. However, the surgeon inadvertently injected a major artery in the foot while treating varicose veins in the foot. That led to Nicolau syndrome. The photos show the appearances after six weeks, when gangrene affected the forefoot.

The patient underwent a below-knee amputation and successfully pursued litigation through the civil courts, which was settled for a large sum.

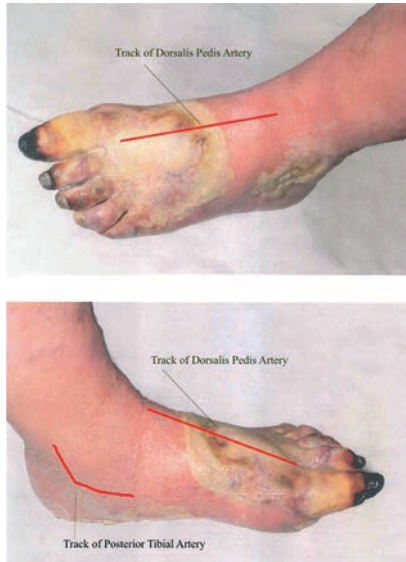


Fig 4

In conclusion

Injection treatment for varicose veins remains a safe and effective treatment, especially when enhanced by the modern methods of foam sclerotherapy and when guided by ultrasound imaging. However, inexperienced or inadequately trained practitioners can produce cosmetically poor outcomes or even disastrous results following incorrect injection of sclerosant drugs. □

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20 years

Defendant instructions

Claimant instructions

Single joint expert

Court experience

Areas of experience:

- Surgery of veins and arteries
- Sclerotherapy & laser ablation of varicose veins
- Varicose veins
- Deep vein thrombosis
- Pulmonary embolism
- Leg ulcer
- Lymphoedema
- Peripheral ischaemia
- Injury to blood vessels
- Medical negligence and personal injury

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