

A varicose ulcer healed by non surgical varicose vein treatment using ultrasound guided foam sclerotherapy

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ABSTRACT

This case presentation details the successful treatment of chronic varicose ulceration by intervention with ultrasound guided foam sclerotherapy (UGFS).¹

This presentation reiterates the importance of investigation and treatment of the source of incompetence when dealing with varicose ulceration.

Introduction

Venous ulceration is a significant source of morbidity and drain on community health resources nationwide and internationally.² Varicose ulceration is the end stage of chronic venous incompetence. If the incompetence relates to the superficial system of veins in the lower limb, non surgical techniques should be considered to treat the incompetence and aid ulcer healing.

A case in which UGFS provided successful non-surgical treatment of the lesser saphenous vein³ and associated varicose ulcer is described.

Case history

In April 2007 a healthy 78-year-old male presented to the clinic with a large varicose ulcer over the lateral aspect of the left lower leg (Figure 1). He had been having district nurse care since 2003 but was not wearing a compression stocking. The ulcer was very painful. The patient's past medical history was uneventful apart from two previous operations

to the left leg for varicose veins in 1952 and 1987.

There was no personal history of venous thrombo-embolism but his mother had died from deep vein thrombosis in the early post natal period, following the birth of the patient. The patient was on no medication and had no recorded allergies.

A thrombophilia screen was normal. Duplex ultrasound scan (Figure 2) of the left leg revealed lesser saphenous vein incompetence, with a diameter of 8.6mm close to the incompetent sapheno-popliteal junction. The greater saphenous and deep systems were normal.

UGFS was discussed at length and prior to treatment. UGFS was performed in May 2007 with 12mls of 3% Sodium Tetradecyl (STS) foam (mixed 2:1 ratio of air to STS by the Tessari Method⁴). With patient in the prone position, four injections of 3mls each were placed

along the lesser saphenous vein starting 7cm proximal to the sapheno-popliteal junction and moving distally, using ultrasound control.

Then 50mls of normal saline was injected into the saphenous sheath, proximally to distally, to provide internal compression of the vein.⁵ Finally a class 2 compression stocking was applied to the limb and the patient encouraged to mobilise.

The patient was reviewed at two weeks and the repeat duplex scan showed a good result to treatment, with no compressibility or colour flow in the lesser saphenous vein. The patient said the ulcer was already smaller and less painful. The district nurse continued dressings and the patient was encouraged to persevere with the compression stocking. The ulcer continued to make steady progress and had healed at follow up in October 2007 (Figure 3). Good sclerosis of the treated vein was also noted on duplex scan.

Discussion

Leg ulcers are a common source of morbidity in our community and a significant drain on health care resources. Seventy per cent of ulcers are either venous or mixed venous/arterial with the venous component most significant. It has been estimated that up to 25% of district nursing resources are involved with ulcer care

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Figure 1



Figure 2

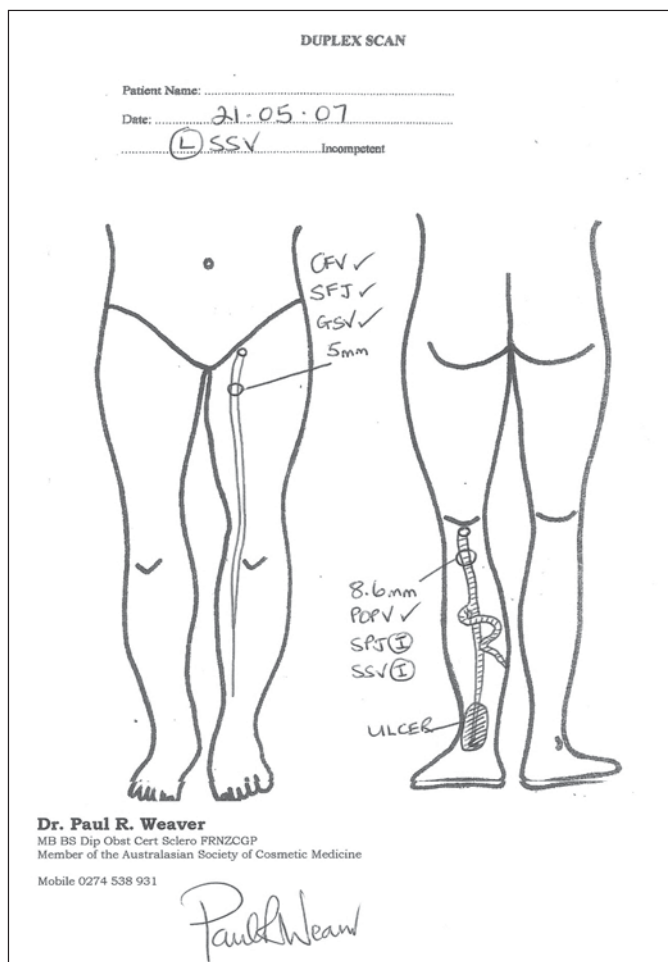


Figure 3



and that less than 50% of ulcer patients are receiving compression therapy. This, all from the guidelines published back in 1999.⁶

This case presentation clearly demonstrates the advantage of treating superficial vein incompetence when trying to heal ulcers. It also demonstrates the success of an office-based, non surgical technique.⁷ Since this technique (UGFS) is community-based and does not rely on theatre time or general anaesthetic, it has the

potential to benefit not only the patients but also health care providers and funders.

It is the author's belief that varicose ulceration can best be managed in the community with non surgical,

office-based treatments such as UGFS and endovenous laser or radiofrequency (VNUS Closure®).^{8,9,10}

Competing interests

None declared.

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