

Retrograde Endovenous Microfoam Ablation of Venous Valvular Reflux in the Treatment of CEAP 6 Ulcers: A Case Study

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Introduction & Objectives

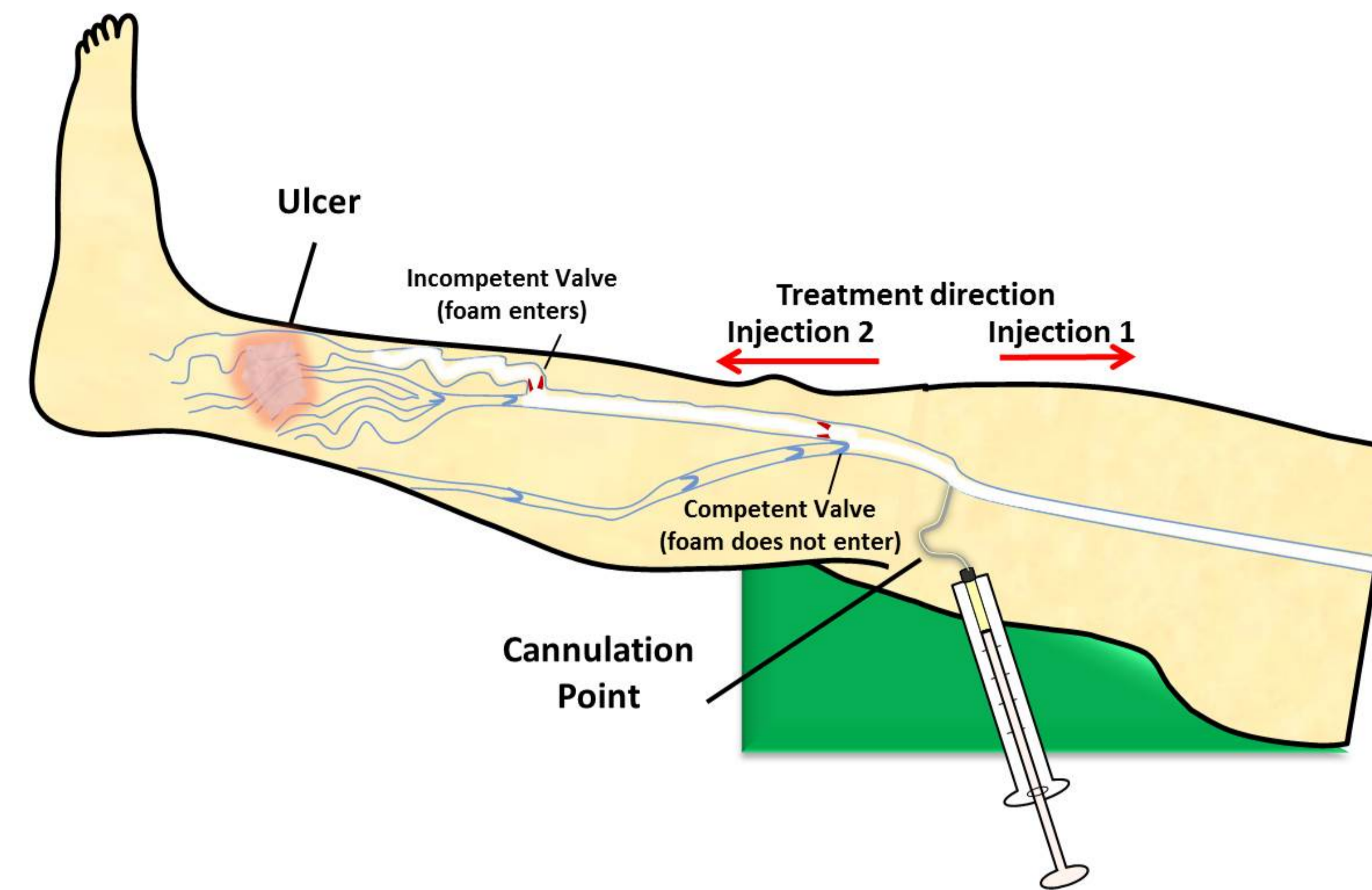
Ligating incompetent perforators, subfacial endoscopic perforator vein surgery (SEPS) and ultrasound guided sclerotherapy of perforating veins have been employed to decrease ambulatory venous hypertension and promote healing of chronic venous insufficiency ulcers.

The objective of this study is to present a retrograde injection technique for endovenous microfoam ablation of venous valvular reflux of the greater saphenous vein and its below knee varicose tributaries from a single remote access site.

This technique allows for a less invasive approach to treating venous hypertension above the knee, while correcting the saphenous reflux that leads to skin changes below the knee and ultimately leading to a more rapid healing of venous leg ulcers.

Materials & Methods

The greater saphenous vein is accessed with a 5 French micropuncture catheter in the distal thigh. The leg is elevated 45 degrees in order to empty the varicose veins of blood. Under ultrasound guidance, the greater saphenous vein is thrombosed with polidocanol injectable foam 1% while the saphenofemoral junction is compressed to protect the deep system.



Next a second injection is administered through the same catheter directing the polidocanol foam to flow distally in a retrograde fashion through the incompetent varicose veins to the calf and ankle. The patient is asked to dorsiflex the foot to close patent perforators.

Results

A 65 year old female present with a venous ulcer for 6 months despite compression therapy. The ulcer measured four cm in diameter. The greater saphenous vein and its accessory branch is 6.2 mm and 5.4 mm in diameter and the venous valvular reflux measures 1.02 sec. The GSV was thrombosed with 5 mL of polidocanol injectable foam 1%. The remaining varicosities

in the distal leg were treated with an additional 4 mL of polidocanol injectable foam 1% through the same micropuncture site in the distal thigh for a total foam volume of 9 mL. The ulcer healed in 4 weeks (27 days) and remained healed at 2 weeks post procedure.



Venous stasis ulcer 6 months after compression therapy



Healed ulcer 27 days after treatment with polidocanol injectable foam 1%

Conclusions

An improved technique for endovenous chemical ablation of venous valvular reflux of the GSV and its varicose tributaries below the knee is described. This technique decreases the ambulatory venous hypertension contributing to the formation of chronic venous ulcers from a single remote access site. This results in shorter ulcer healing time as compared to thermal ablation of GSV with or without adjunct surgical procedures.

References

Gloviczki, et al. JVS May suppl. 2011.
Todd et al., Phlebology. 2014; 608-618.