

# Retrograde Injection Technique for Endovenous Chemical Ablation of Varicose Veins, A Case Study

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## Introduction & Objectives

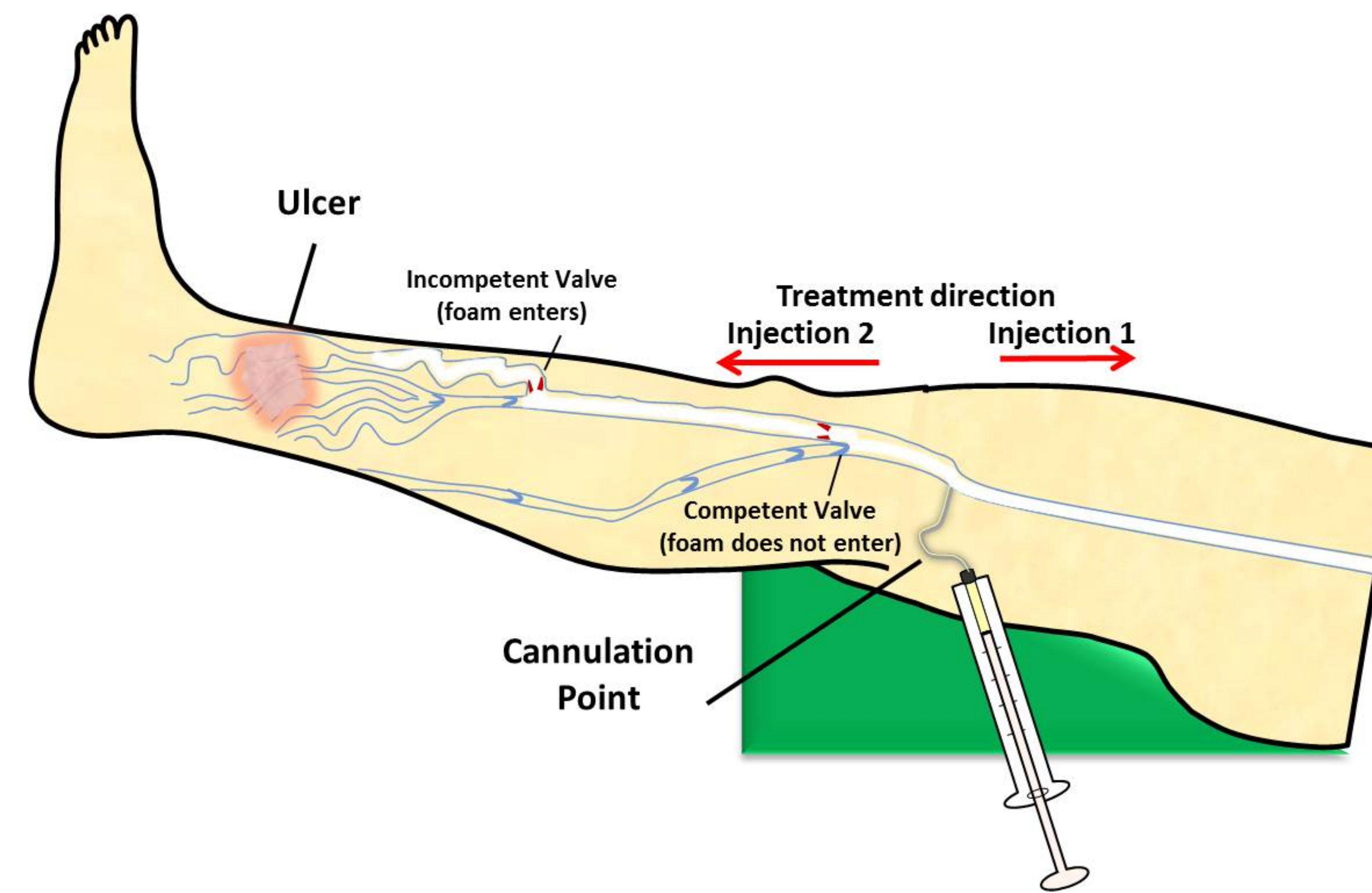
The treatment of large superficial varicose veins requires a two step approach. First the incompetent greater saphenous vein is closed with endovenous thermal ablation followed by ambulatory phlebectomy of the residual varicose veins, either at the same time or at a later date. This study outlines an improved technique for treating the incompetent greater saphenous vein and the associated varicose vein tributaries at the same time with a single access site using endovenous chemical ablation with polidocanol injectable foam 1%



## Materials & Methods

The greater saphenous vein is accessed with a 5 French micropuncture catheter in the distal thigh. The leg is elevated 45 degrees 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 allowing the polidocanol foam to flow distally in a retrograde fashion through the incompetent varicose veins to the calf. The patient is asked to dorsiflex his foot to close patent perforators.

## Results

38 year old male presents with varicose veins for many years with heavy feeling in both legs. Severe reflux in the greater saphenous vein 500 ms in duration was noted and the right greater saphenous vein measured 11 mm in diameter with 8 to 11 mm varicosities at the knee. [Figure1].

The greater saphenous vein was thrombosed with 3 mL's of polidocanol injectable foam 1%. The remaining varicosities in the distal leg were then treated with an additional 5 mL of polidocanol injectable foam 1% through the same micropuncture catheter in the distal thigh for a total foam volume of 8mL. [Figure3: 2 weeks post op]



## Conclusions

An improved technique for simultaneous treatment of the GSV and associated varicose veins in the distal leg through a single access site is described.

## References

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