

Safety and Efficacy of Endovenous Laser Ablation and Foam Sclerotherapy: Experience of 181 limbs treated at MGH



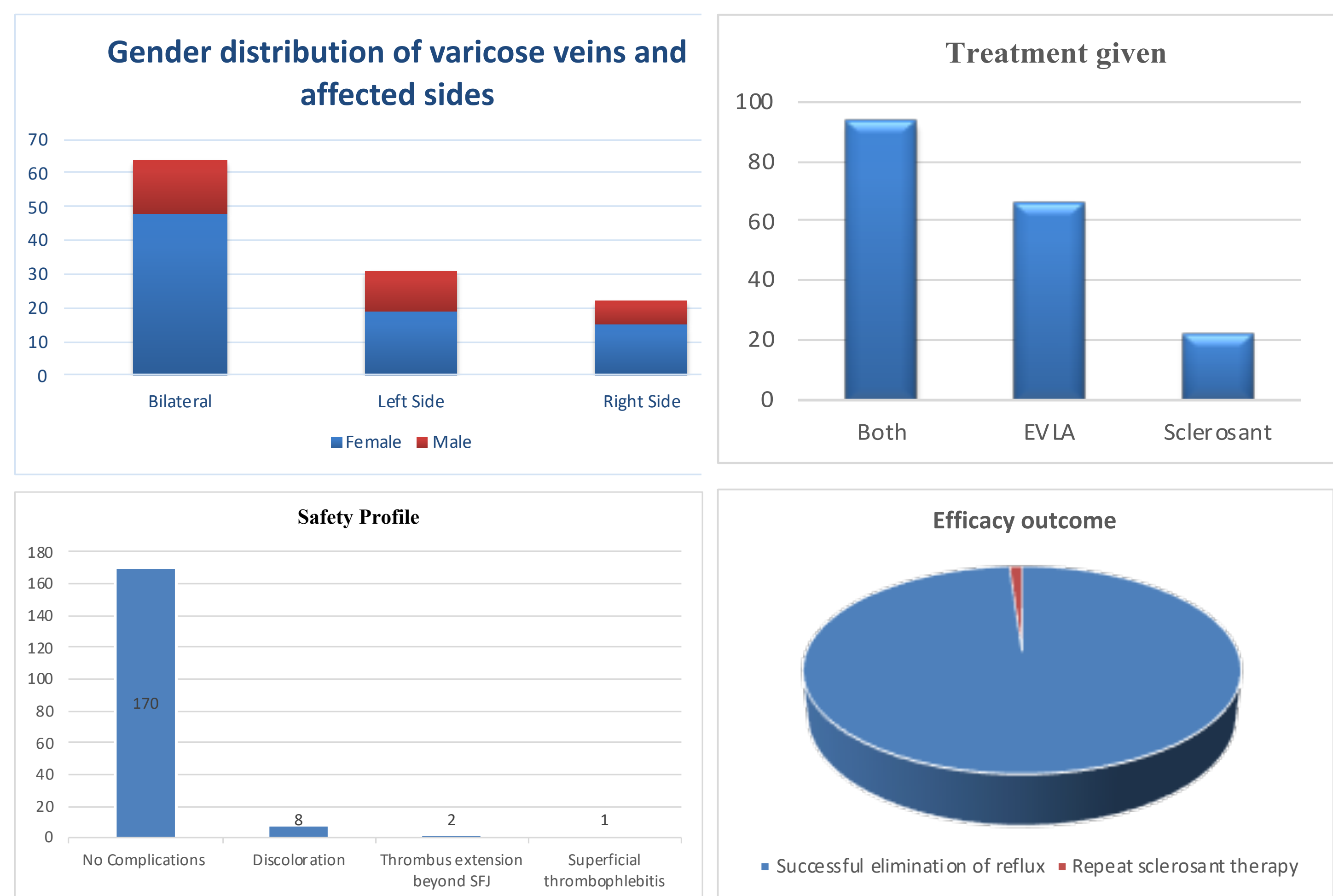
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Introduction

Varicose veins affect a significant proportion of population, with the prevalence ranging from 10% to 30% worldwide with female predominant. Alternative to surgery, Endovenous Laser Ablation (EVLA) is a minimally invasive treatment for varicose veins. Permanent vein occlusion is caused by laser-induced thermal damage of the endothelium followed by subsequent fibrosis. The potential advantages of EVLA were lower postoperative morbidity and rapid recovery.

Thrombus extension beyond SFJ in 2 cases and one superficial thrombophlebitis which were successfully treated with an OAC for one month.



Objective

Assessment of safety and efficacy of EVLA and Sclerotherapy

Methods

Single center prospective clinical pilot study in patients with varicose veins undergoing EVLA and foam therapy from December 2018 to September 2024, with follow-ups at 1 week and 1 month.

Results

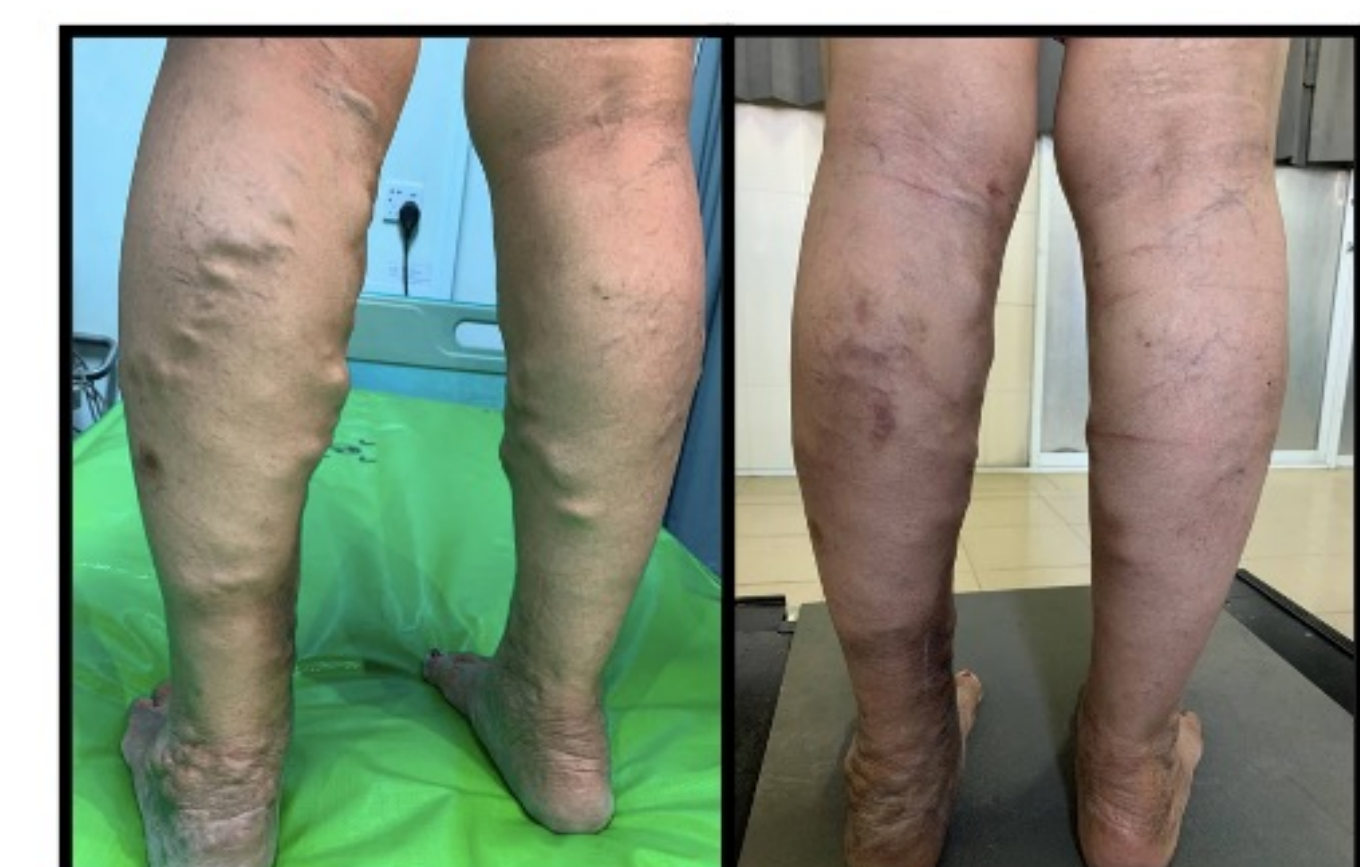
Total 181 limbs of 117 patients were treated and 70% (n=82) were females with a mean age of 53.68 ±14.32 years (20-80). Sixty-four patients (54%) had bilateral involvement. Commonest presentation being skin discoloration, itchiness, and bulging veins. Sixty-six limbs were treated with EVLA only, 22 limbs were treated with sclerotherapy only and 93 were treated with both. The great saphenous vein (GSV) was most frequently treated in both sclerotherapy and EVLA (n=166), 10 small saphenous vein and 1 venous malformation. At one week, Duplex USG showed successful elimination of reflux in almost all cases and only 2 cases needed repeat sclerosant therapy for residual reflux.



Pre Vs Post



Pre Vs Post



Conclusion

In the past, varicose veins were treated surgically with vein stripping, ligation or phlebectomy which was invasive and impactful on patients both emotionally and cosmetically. EVLA can now be safely and effectively use to eliminate reflux in varicose veins using only local anesthesia with better patients' outcome and mild adverse effects. Patients can go home on the same day of procedure with minimal limitation of activity.