

## LETTER TO THE EDITOR

### THE PIONEERS OF VERICOSE VEINS TREATMENT WITH ENDOVENOUS GLUE IN PAKISTAN

Respected Mam,

Lower limb varicose veins (VV) are one component of the most common broad spectrum of chronic venous insufficiency with an incidence of 10-30% worldwide<sup>1</sup>. Previously considered only a cosmetic concern, it is a very well recognized disease now being treated by vascular surgeons in particular<sup>2</sup>. Treatment of varicose veins in lower extremities has been changing from open surgical intervention to variable minimally invasive options from last two decades. Mini invasive techniques have spread enormously<sup>2</sup>. The major reason is the possibility of out-patient treatment, shorter and lesser burden, minimum need for anesthesia, better cosmetic effect, shorter intervention as well as the recovery period. Mini-invasive techniques can be divided into thermal (endovascular laser - EVL, radiofrequency ablation - Closer Fast, mechano-chemical [ClariVein]), and chemical sclerotherapy under ultrasound guidance and most recent treatment with cyanoacrylate (VenaSeal, VariClose)<sup>3</sup>. Endovenous ablation is the latest procedures and standard of care are but in Pakistan, due to financial constraints and scarcity of skilled operators, it is only done at few places and not available to everyone. The procedure requires tumescent analgesia being an endothermal procedure leading to most of the discomfort, high maintenance machine, technical expertise, and repeat sessions that adds to the cost<sup>3,4</sup>. Therefore the general public is left with the sole option of injection sclerotherapy which has its own demerits like an inadequate response, repeated sessions and thrombophlebitis<sup>3</sup>.

Vascular Surgeons in Pakistan are handful. It is still on its road to development. A routine of 50 patients per week visit Vascular Surgery clinic at our center with Chronic venous insufficiency most of them are treated with injection sclerotherapy owing to its low cost and outpatient procedure. Owing to its less time consumption,

10 to 12 patients can undergo sclerotherapy per week.

Endovenous glue is one of the most recent and least invasive options<sup>4</sup>. It is composed of cyanoacrylate<sup>3,4</sup>. It is based on the principle of installation cyanoacrylate a regular intervals with external compressions that leads to immediate tissue adhesion and lumen occlusion ultimately followed by fibrosis<sup>4</sup>. It has its merit of no requirement of tumescent analgesia, less painful, less complicated equipment's, simplicity of technique, affordability, less time consuming, no need of post-operative compressive stockings and can be done as outpatient<sup>3</sup>. It is immune to the complication of surrounding arterial or nerve injury as associated with previously defined treatment options<sup>3</sup>.

Our center has proudly introduced the latest endovenous glue management of varicose vein free of cost that marks us first ever to have done this procedure in the history of Pakistan.

We performed the procedure as a daycare procedure. It was performed under ultrasound guidance, in reverse Trendelenburg position, with an injection of 2ml of cyanoacrylate glue in a preloaded gun after visualization and assurance for a catheter being inside the long saphenous vein and 10cm away from the saphenofemoral junction. The patient was assessed on 7th post-operative day and there was complete occlusion of varicose veins, no reflux, and deep venous thrombosis.

Though it was the first time, we hope that with the availability of instruments, the cost with the decline and it will be made available to most of the population.

### REFERENCES

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