## EVALUATION OF ENDOVENOUS RADIOFREQUENCY ABLATION (RFA) FOR TREATMENT OF PRIMARY VARICOSE VEINS IN THE LOWER LIMBS Mohamed Elsayed Mohamed Salem, Sameh Mostafa Elsayed Aly, Ahmed Mohamed Mohamed Kassem, Mohamed Mostafa Esmail Abu Zied

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### Introduction

Varicose veins (VV) are dilated, elongated, and tortuous veins that permit the reverse flow of blood. It is one of the most common medical conditions that affects adults and older people. Primary VV is due to pathology in the superficial veins, such as valvular dysfunction or vein wall dilatation. The presentation of primary VV can range from those that are noticed incidentally to those causing significant symptoms such as pain, disfigurement, edema, and hyperpigmentation. Duplex ultrasound is used for the diagnosis and management of VV. The complications of primary VV are less common than those of secondary VV, like bleeding, superficial thrombophlebitis, and ulcerations. Treatment of VV has had the great attention of many physicians throughout history, since the prevalence of the disease is very high. This encourages physicians to find better and more convenient treatments. Conservative, surgical, or recently less invasive endovenous techniques are the lines of management.

## Aim of the work

To study the evaluation of endovenous radiofrequency ablation (RFA) for treatment of primary varicose veins in the lower limbs.

# **Patients and Methods**

The study was conducted on 20 patients at AMUH in the period between July 2021 and November 2023. Clinical examination and venous duplex in all patients revealed an incompetent saphenofemoral junction (SFJ)

with grade IV reflux, while the deep venous system and saphenopopliteal junction were intact. All patients were treated by radiofrequency ablation. Tumescent anesthesia for all cases was the same. The great saphenous vein (GSV) was punctured above the knee joint, and the radiofrequency catheter was advanced to 2 cm from the SFJ. The RF cycle was 20 seconds per 7-cm segment. The most proximal segment of the GSV to the SFJ was ablated for two cycles, while the rest of the vein was ablated by one cycle. Elastic stocking was advised for all patients. The deep venous system was scanned for patency at the end of the procedure. All patients were followed up for one year.

#### Results

**Table 1:** The cases under study were distributed based on duration of procedure (n = 20)

<b>Duration of operation (minutes)</b>	No.	%
<20	2	10
20 – 30	8	40
>30 - 40	8	40
>40	2	10
Min. – Max.	18 – 45	
Mean ± SD.	$30.9 \pm 7.09$	
Median (IQR)	30.5 (26.5 – 35.5)	

IQR: Inter quartile range SD: Standard deviation

**Table 2:** The cases under study were distributed based on complications after the procedure (n = 20)

Complications	No.	%
Ecchymosis	3	15
Pigmentations	0	0
	0	0
Nerve injury	0	0
DVT Pulmonary Embolism (PE)	0	0
Recurrence	0	0

#### Conclusion

Radiofrequency ablation (RFA) is safe and effective in the treatments of primary varicose veins.

Early return to daily activities is one of the advantages of RFA. Efficacy and operation time are variable among operators. The procedure requires a certain learning curve to be done effectively and timely.



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