

## ORIGINAL RESEARCH

# Assessment of ambulatory phlebectomy and compression sclerotherapy for varicose veins

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### ABSTRACT

**Background:** Chronic venous disease is an important cause of morbidity in a significant percentage of the world's population. The present study was conducted to compare ambulatory phlebectomy and compression sclerotherapy for varicose veins. **Materials & Methods:** 50 patients of varicose veins of both genders were divided into 2 groups of 25 each. Group I underwent ambulatory phlebectomies and group II underwent foam sclerotherapy. Presenting primary symptoms and post-procedure symptoms were compared. **Results:** Group I had 15 males and 10 females and group II had 13 males and 12 females. Primary symptoms in group I and group II were bleeding in 12 and 14, ulcer in 5 and 6, itching in 6 and 3, pain in 2 and 5, edema in 10 and 8 and night cramps in 3 and 7 respectively. Post-procedure symptoms were bleeding in 2 and 4, transient loss of sensation in 1 and 2, small ulcers in 2 and 3, superficial thrombophlebitis in 4 and 6 and transient skin pigmentation in 2 and 3 respectively. The difference was significant ( $P < 0.05$ ). **Conclusion:** Ambulatory phlebectomy is an efficient treatment method for varicose veins of the leg.

**Key words:** Ambulatory phlebectomy, compression sclerotherapy, varicose veins

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### INTRODUCTION

Chronic venous disease is an important cause of morbidity in a significant percentage of the world's population. In the United States, the prevalence of varicose veins for populations above 10 years of age is estimated at approximately 12%.<sup>1</sup> Chronic venous disease causes a significant negative effect on the quality of life (QoL) of patients; however, there is a significant improvement in the QoL following treatment for varicose veins. The combination of compression therapy with intravenous injection of a sclerosing agent for the treatment of varicose veins was introduced in 1953.<sup>2</sup> Early studies indicated that this compression sclerotherapy (Sclero) would be an efficient addition to the varicose vein surgery in use at the time. Although ambulatory phlebectomy (AP) was "invented" around the same period, this technique needed more time to become well-established worldwide.<sup>4</sup> Ambulatory phlebectomy is a good choice for treating both.<sup>3</sup>

Lateral accessory varicose vein (LAV) is a clinical diagnosis of a tortuous and dilated vein typically on the anterolateral side of the thigh. This varicose vein originates on the lateral side of the leg distal to the knee, moving upward, crossing the leg semicircularly draining just 10 cm distal to the sapheno-femoral junction and into the GSV or directly into its junction.<sup>4</sup> LAV is most consistent with one of four major side branches or tributary veins of the GSV: the lateral accessory vein. The clinical concept of LAV is based on the arciform course of this second largest superficial vein on the leg and is relatively constant.<sup>5</sup> The present study was conducted to compare ambulatory phlebectomy and compression sclerotherapy for varicose veins.

### MATERIALS & METHODS

The present study consisted of 50 patients of varicose veins of both genders. All gave their written consent to participate in the study.

Data such as name, age, gender etc. was recorded. Patients were divided into 2 groups of 25 each. Group I underwent ambulatory phlebectomies and group II underwent foam sclerotherapy. Parameters such

as presenting primary symptoms and post-procedure symptoms were compared. Data thus obtained were subjected to statistical analysis. P value < 0.05 was considered significant.

**RESULTS**

**Table I: Distribution of patients**

Groups	Group I	Group II
Method	Ambulatory phlebectomies	Foam sclerotherapy
M:F	15:10	13:12

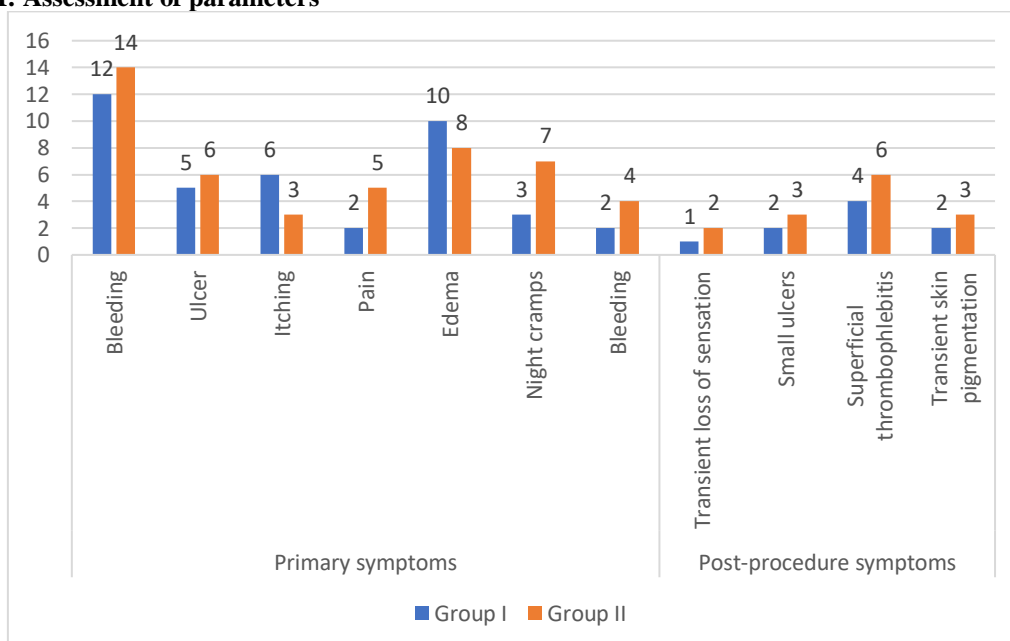
Table I shows that group I had 15 males and 10 females and group II had 13 males and 12 females.

**Table II: Assessment of parameters**

Parameters	Variables	Group I	Group II	P value
Primary symptoms	Bleeding	12	14	0.05
	Ulcer	5	6	
	Itching	6	3	
	Pain	2	5	
	Edema	10	8	
	Night cramps	3	7	
Post-procedure symptoms	Bleeding	2	4	0.04
	Transient loss of sensation	1	2	
	Small ulcers	2	3	
	Superficial thrombophlebitis	4	6	
	Transient skin pigmentation	2	3	

Table II, graph I shows that primary symptoms in group I and group II were bleeding in 12 and 14, ulcer in 5 and 6, itching in 6 and 3, pain in 2 and 5, edema in 10 and 8 and night cramps in 3 and 7 respectively. Post-procedure symptoms were bleeding in 2 and 4, transient loss of sensation in 1 and 2, small ulcers in 2 and 3, superficial thrombophlebitis in 4 and 6 and transient skin pigmentation in 2 and 3 respectively. The difference was significant (P< 0.05).

**Graph I: Assessment of parameters**



**DISCUSSION**

The GSV can be treated with both AP and Sclero. However, it is not possible to perform a proper crosssectomy with these techniques. Next to the GSV, the LAV vein is the largest superficial vein in the leg, and it may lead to complaints if it has become

varicose.<sup>6</sup> LAV is considered to be an excellent indication for Sclero by many phlebologists. The use of AP as an alternative therapy for LAV has been suggested in the past.<sup>7,8</sup>The present study was conducted to compare ambulatory phlebectomy and compression sclerotherapy for varicose veins.

We found that group I had 15 males and 10 females and group II had 13 males and 12 females. Vatsa et al<sup>9</sup> compared ambulatory phlebectomy and compression sclerotherapy for varicose veins. Sixty-four cases of varicose veins of both genders were randomly divided into 2 groups of 32 each. Group I underwent ambulatory phlebectomies and group II underwent foam sclerotherapy. Parameters CEAP C2–C3 legs was seen in 26 and 27, C4–C6 legs was seen in 6 and 5, GSV diameter was 8.6 mm and 7.5 mm, The mean procedure time was 40.2 minutes and 25.3 minutes. Primary symptoms were pain in 13 and 11, oedema in 5 and 3, night cramps in 8 and 5, bleeding in 2 and 7, ulcer in 6 and 4 and itching in 7 and 3 in group I and II respectively. Post-procedure symptoms were transient skin pigmentation in 1 and 3, superficial thrombophlebitis in 0 and 2, bleeding in 1 and 3, transient loss of sensation in 0 and 1 and small ulcers in 1 and 4 in group I and II respectively. Good improvement (+3) was seen in 85% and 60%, moderate improvement (+2) in 10% and 20%, mild improvement (+1) in 5% and 8%, unchanged (0) in 0 and 7% and mild worsening (-1) in 0 and 5% in group I and II respectively.

We found that primary symptoms in group I and group II were bleeding in 12 and 14, ulcer in 5 and 6, itching in 6 and 3, pain in 2 and 5, edema in 10 and 8 and night cramps in 3 and 7 respectively. Post-procedure symptoms were bleeding in 2 and 4, transient loss of sensation in 1 and 2, small ulcers in 2 and 3, superficial thrombophlebitis in 4 and 6 and transient skin pigmentation in 2 and 3 respectively. Roos et al<sup>10</sup> compared recurrence rates of varicose veins and complications after compression sclerotherapy and ambulatory phlebectomy. They randomly allocated 49 legs to compression sclerotherapy and 49 legs to ambulatory phlebectomy. Eighty-two patients were included, of whom 16 were included with both of their legs. The number of treated legs was therefore 98, but two patients were lost to follow-up. One year recurrence amounted to 1 out of 48 for phlebectomy and 12 out of 48 for compression sclerotherapy; at 2 years, six additional recurrences were found, but then solely for compression sclerotherapy. Significant differences in complications occurring more in phlebectomy than in

compression sclerotherapy therapy were blisters, teleangiectatic matting, scar formation, and bruising from bandaging.

The limitation the study is small sample size.

## CONCLUSION

Authors found that ambulatory phlebectomy is a efficient treatment method for varicose veins of the leg.

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