

Varicose veins: Surgery can still be considered as an option in the treatment

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I. Introduction

Varicose veins have been recognized as chronic disorder since ancient times. Hippocrates discussed those 2500 years ago¹. About 20% of worldwide population suffers from varicose veins and another 2% have skin changes which may precede venous ulceration². It is in the developed countries where attire reveals more than it conceals; patients turn up for treatment of cosmetic reasons. In our Indian scenario, it is the complications not the cosmetic reasons bring the patient to the doctor. That is the reason, why, though common, varicose veins remain as an ice berg phenomenon.

II. Aims and objectives

The study was aimed to know the pattern of presentation and complications of varicose veins along with their management and its outcome.

III. Materials and methods

This is a prospective study involving patients with primary varicose veins admitted in our hospital from Jan 2008 to Dec.2008 who underwent treatment and followed up for a period of two years. 56 patients were included in the study during the period. Patients with secondary and recurrent varicose veins were excluded from the study.

IV. Results

Total of 80 limbs in 56 patients were examined, investigated and followed up during the period and results were analyzed.

Table 1: Age distribution

Age(years)	Patients	Percentage
10-20	4	7.1
21-30	14	25.0
31-40	18	32.1
41-50	6	10.7
51-60	14	25.0

Varicose veins of the lower limb are disease of adult life. The youngest in the study was 18 years and the eldest were 60 years.

Figure 1: Age distribution

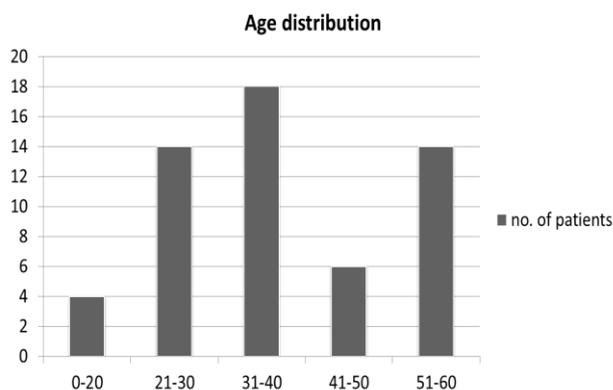


Table 2: Sex distribution

Sex	No. of patients	Percentage
F	8	14.3
M	48	85.7

Figure 2: Sex distribution

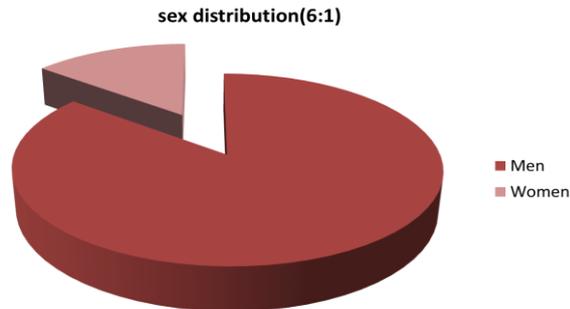


Table 3: Clinical class of CEAP

C class	Frequency	Percentage
1	0	0
2	36	45
3	2	2.5
4	16	20
5	4	5
6	22	27.5

The majority of the patients had the complaint of prominent veins. Rest of the patients sought medical help for one or the other complications.

Figure 3: Clinical class

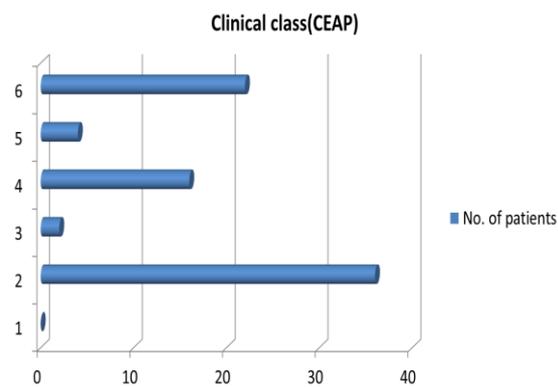


Table 4: Limb involvement

Limb involved	No. of patients	Percentage
Right	8	14.28
Left	24	42.86
Both	24	42.86

The study showed an increased incidence in bilateral as well as left sided varicosity.

Figure 4: Limb involvement

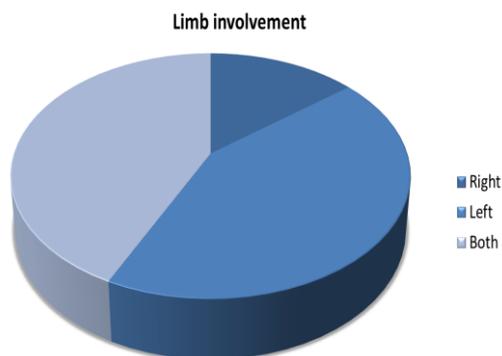


Table 5: Venous system involved

Venous system involved	No. of patients	percentage
Long	21	75
Short	1	3.57
Both	6	21.43

This study revealed that the majority of the patients have involvement of long saphenous system.

Figure 5: Venous system involved

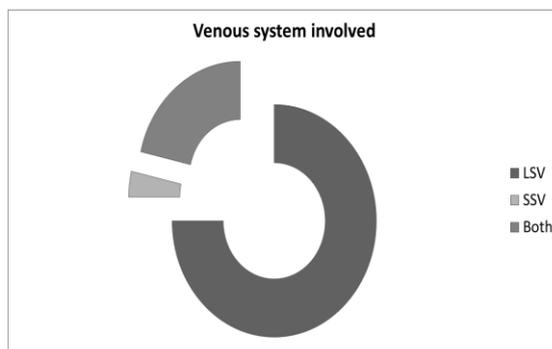


Figure 6: site of incompetence

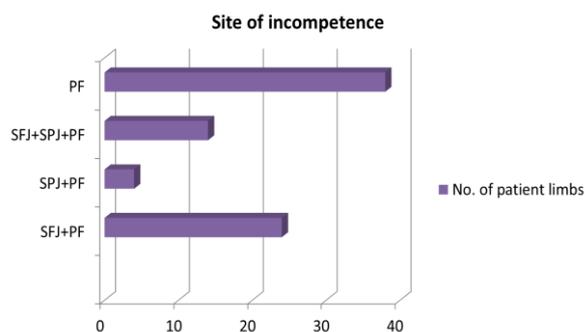


Table 6: Surgical procedures performed

Surgical procedure	No. of patients
SFFL+STR	8
SFFL+STR+MSFL	38
SPL+MSFL	4
SFFL+STR+MSFL+SPL	14
MSFL	16

Table 7: Complications

Complications	No. of patients
Wound infection	3
Pigmentation	8
Saphenous neuritis	5
Recurrence	3

V. Discussion

In the present study a total number of 28 patients (40 limbs) with primary varicose veins were admitted, investigated, operated and followed up. The results were analysed. The analysis is as follows:

Table 8: Age range

Studies	Age range (yr)
Present study	18-60
Malhotra et al ³	18-65
Bountouroglou DG et al ⁴	20-76
Campbell WB et al ⁵	18-85

In the present study the age range is from 18 yrs to 60 yrs. Malhotra et al³ (1972) in their study comprising 677 patients from both North and South India had an age range of 18-65 years. In the West, Campbell WB et al⁵ in their study of 943 patients in England had an age range of 18-85 years.

Table 9: Male to female ratio

Studies	Male: Female
Present study	6:1
Ducasse E et al ⁶	1:2.7
Campbell WB et al ⁵	1:1.9

In the present study, male to female ratio is 6:1. Ducasse E et al⁶ (Rome, Italy) showed a ratio of 1:2.7. Similarly Campbell WB et al⁵ (UK) got a higher female patients with the ratio of 1:1.9.

The decreased occurrence of disease in females at our set up may be due to the fact that our middle class and lower class women are not much worried about the cosmetic appearance. Secondly the women may be resistant to complications of varicose veins probably due to less average height compared to male which has a direct impact on venous hypertension or less violent muscular activity.

Table 10: Limb involvement (comparison)

Limb involved in percentage	Myers KA et al ⁷	Present study
Right	49.9	14.28
Left	50.1	42.86
Both	-	42.86

In present study right and left limb involvement is 14.28% and 42.86% respectively and also a high percentage of bilateral involvement (42.86%). Myers KA et al⁷ (Australia) showed an almost equal incidence in both legs.

The cause for higher incidence of left side involvement could not be exactly sought. Higher bilateral disease could be correlated to erect posture and similar etiopathological factors affecting both legs at same time.

Table 11: Common presentation (CEAP class)

Studies	Most common C class	Percentage
Present study	C ₂	45
Agus et al ⁸	C ₂	82
Theivacumar NS et al ⁹	C ₂	56

Most of the patients in the present study presented with prominent veins and rest for some or the other complications. Similar results were shown by studies conducted by Theivacumar NS et al⁹ at Leeds (UK).

Table 12: Incompetent perforator

Studies	Incompetent perforator(%)
Present study (n=80)	100%
Labropoulos N et al ¹⁰ (n=125)	68%

In the present study all 100% of patients had combined perforator incompetence and 47.5% isolated perforator incompetence which shows that majority of the cases presenting to the hospital for treatment are advanced cases of hemodynamic disturbances of the limb and it is comparable with study conducted by Labropoulos N et al¹⁰ where 68% had isolated perforator incompetence.

Table 13: surgical procedures

Surgeries	Wright et al ¹¹	Present study
Primary SFJ procedures	71%	72.4%
Primary SPJ procedures	11%	3.4%
Combined SFJ & SPJ procedures	2%	3.4%
Bilateral procedures	5%	10.4%
Phlebectomies	4%	10.4%

Most commonly performed surgery in the present study was SFJ ligation and LSV stripping which was comparable to the study conducted by Wright et al¹¹.

Table 14: complication rates

Complications	Wright et al ¹¹	Menyhei G et al ¹²	Present study
Overall	23%	-	23.75%
Paresthesia	8%	14%	6.25%
Wound infection	6%	-	3.75%

In the present study paresthesia secondary to saphenous neuritis was the commonest complication in patients undergoing long segment stripping of LSV. Similar results were obtained in the studies by Wright et al¹¹ in UK and Menyhei G et al¹² in Hungary.

VI. Conclusion

The study showed that the disease is prevalent in young adults and most have complications at presentation. Appropriate surgery still is an important tool in the management of varicose veins and helps to prevent recurrences.

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Abbreviations

1. SFJ- Saphenofemoral junction
2. SPJ- Saphenopopliteal junction
3. PF- Perforators
4. SFFL- Saphenofemoral junction flush ligation
5. SPL- Saphenopopliteal junction ligation
6. STR- Long saphenous vein stripping
7. MSFL- Multiple sub fascial perforator ligation