

Retrospective Study of Varicose Vein and its Management in IGIMS, Patna

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ABSTRACT

Introduction: The management of varicose veins has changed rapidly in recent years. Conservative therapy is typically the first-line treatment for many patients with symptomatic varicose veins. The present study was conducted for retrospectively analyzing the profile of varicose vein and its management.

Material and methods: A total of 100 patients within the age group of 15 to 65 years with varicose vein complications were included. Complete demographic details of all the patients were obtained from the data record files. Clinical details were also obtained. A Performa was made and results of routine investigations were recorded. Details regarding the treatment protocol used (conservative, sclerotherapy, surgical) and follow-up data was also recorded separately. Patients were not willing and unfit for surgery and patients with complications according to data record files, were treated by conservative management.

Results: Dilated veins only were found to be present in 18 percent of the patients while dilated veins with pain was present in 64 percent of the patients. Dilated veins with ulcerations and dilated veins with bleeding were present in 40 percent and 8 percent of the patients respectively. In 33 patients undergoing Sclerotherapy, complete response was seen in 17 patients, recurrence was seen in 6 patients while the remaining 10 patients did not come back on follow-up. In 31 patients undergoing surgical therapy, complete resolution at time of discharge was seen in 28 patients while residual varicosities were seen in 3 patients.

Conclusion: Varicose veins are a frequently encountered pathology affecting the middle aged group with commonest presentation being unilateral limb involvement. Hence a good clinical assessment with investigations is necessary for reducing the morbidity associated with it.

Keywords: Varicose, Limb, Involvement

INTRODUCTION

Chronic venous insufficiency of the lower limbs is a common condition afflicting 25% of women and 15% of men, with venous reflux at the saphenofemoral junction (SFJ) being the most common cause leading to varicose veins. The management of varicose veins has changed rapidly in recent years. Saphenofemoral ligation and stripping of the great saphenous vein (GSV) was once the standard treatment for GSV reflux, but more recently it has been challenged—and in some areas replaced—by endovenous therapies (EVT).¹⁻³

A change from clinical examination and venography to more frequent color duplex examination has shown more rates of pickup of valvular incompetence, better localization of

perforator incompetence and lesser chances of recurrence. Treatment options are showing a trend from more invasive procedures to lesser invasive procedures such as US guided foam sclerotherapy, US guided ligation of perforators and varicosities, endoscopic surgical techniques, Radiofrequency ablation and laser treatment.^{4,5}

Conservative therapy is typically the first-line treatment for many patients with symptomatic varicose veins. For patients with symptomatic varicose veins, the SVS/AVF clinical practice guidelines recommend compression therapy; however, if the patient is a candidate for saphenous vein ablation, compression therapy is not recommended as the primary treatment. Various interventional modalities are effective in the treatment of varicose veins, but the recurrence rates are high.^{6,7}

Hence the present study was conducted for retrospectively analyzing the profile of varicose vein and its management.

MATERIALS AND METHODS

The present study was conducted for period of 2 years and profile of varicose vein and its management were studied. A total of 100 patients within the age group of 15 to 65 years with varicose vein and its complications were included. Complete demographic details of all the patients were obtained from the data record files. Clinical details were also obtained. A Performa was made and results of routine investigations like CBC, Serum creatinine, blood urea nitrogen, electrolytes, Liver function tests, blood sugar level and also specialized investigations like venous colour Doppler of lower limbs, ultrasonography were recorded. Details regarding the treatment protocol used (conservative, sclerotherapy, surgical) and follow-up data was also

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recorded separately. Patients who were not willing and unfit for surgery and patients with complications according to data record files, were treated by conservative management. All the results were recorded in Microsoft excel sheet and were analysed discriptively by SPSS software.

RESULTS

In the present study, data records of a total of 100 patients were analyzed. Among these, 40 percent of the patients belonged to the age group of 51 to 65 years, while 37 percent of the patients belonged to the age group of 31 to 50 years. 73 percent of the patients were males while the remaining were females (table-1).

In the present study, dilated veins only were found to be present in 18 percent of the patients while dilated veins with pain was present in 64 percent of the patients. Dilated veins with edema were seen in 52 percent of the patients. Dilated veins with ulcerations and dilated veins with bleeding were present in 40 percent and 8 percent of the patients respectively. Both the lower limbs were involved in 32 percent of the cases, while single limb involvement occurred in 68 percent of the patients (table-2 & 3).

In the present study, conservative treatment was done in 36 percent of the patients, while Sclerotherapy and surgical therapy was done in 33 percent of the patients and 31 percent of the patients respectively (Graph-1). In 33 patients undergoing Sclerotherapy, complete response was seen in 17 patients, recurrence was seen in 6 patients while the remaining 10 patients did not come back on follow-up. In 31 patients undergoing surgical therapy, complete resolution at time of discharge was seen in 28 patients while residual varicosities were seen in 3 patients.

DISCUSSION

Varicose veins arise due to incompetence in valves of deep, superficial and/or perforating veins. This incompetence leads to reflux of blood causing increase in venous pressure resulting in dilated, elongated or tortuous subcutaneous veins of lower legs.⁸

Varicose vein is primarily considered to be a cosmetic problem and widely mistaken to be medically unimportant and given low priority for treatment. However, the fact is

Parameter		Number of patients	Percentage
Age group (years)	15 to 30	23	23
	31 to 50	37	37
	51 to 65	40	40
Gender	Males	73	73
	Females	27	27
Positive family history	Present	22	22
	Absent	78	78

Table-1: Demographic data

Clinical presentation	Number of patients	Percentage
Dilated veins only	18	18
Dilated veins + Pain	64	64
Dilated veins + Edema	52	52
Dilated veins + Itching & Pigmentation	60	60
Dilated veins + Ulcerations	40	40
Dilated veins + Bleeding	8	8

Table-2: Clinical profile

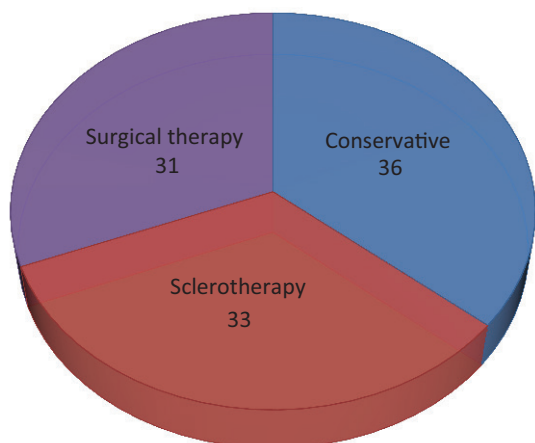
Number of lower limbs affected	Number of patients	Percentage	
Single	Left	37	37
	Right	31	31
Both	32	32	

Table-3: Limb involvement

that the associated pain, swelling, opens ulceration and other morbidities increase cost of its management. The debilitation adds on to the time lost from work and wages.⁹

Patients of varicose veins present with features of fatigue, heaviness in legs, leg cramps and in case with severe disease pigmentation and or non-healing ulcer develop over the medial aspect of leg above medial malleolus. Studies in literature have also reported depression like symptoms in patients of varicose veins. Many patients undergo treatment of varicose veins for cosmetic reasons, other indications are edema of limb, difficulty in walking, pigmentation and non-healing ulcer. Treatment options for varicose veins are, compression stockings, injection sclerotherapy, stripping and ligation, multiple ligation and recent advances like foam sclerotherapy, endovenous laser ablation and radiofrequency ablation.⁸⁻¹⁰ Hence; the present study was conducted for retrospectively analyzing the profile of varicose vein and its management.

In the present study, data records of a total of 100 patients were analyzed. Among these, 40 percent of the patients belonged to the age group of 51 to 65 years, while 37 percent of the patients belonged to the age group of 31 to 50 years. Dilated veins only were found to be present in 18 percent of the patients while dilated veins with pain was present in 64 percent of the patients. Dilated veins with edema were seen in 52 percent of the patients. Dilated veins with ulcerations and dilated veins with bleeding were present in



Graph-1: Treatment

40 percent and 8 percent of the patients respectively. Both the lower limbs were involved in 32 percent of the cases, while single limb involvement occurred in 68 percent of the patients. Our results were in concordance with the results obtained by various authors¹⁰⁻¹² who also reported similar findings. Tonev A et al retrospectively analyzed the records of 100 consecutive patients with chronic saphenofemoral insufficiency. 50 patients underwent endovenous ablation using radiofrequency with ClosureFAST™ catheter (Group 1) and 50 underwent classic stripping of the GSV (Group 2). In both groups, phlebectomies with microincisions of varicose veins below the knee were performed simultaneously with the selected procedure. The study showed improved results using the new ClosureFAST™ technique leading to good venous closure with minimal complications and with improved patient comfort. The outcomes with radiofrequency obliteration of saphenous vein reflux were comparable to those of traditional stripping and ligation at 1-year follow up. Radiofrequency ablation was associated with fewer complications and when they do occur they are time-limited and usually of minor consequence.¹⁰

In the present study, conservative treatment was done in 36 percent of the patients, while Sclerotherapy and surgical therapy was done in 33 percent of the patients and 31 percent of the patients respectively. In 33 patients undergoing Sclerotherapy, complete response was seen in 17 patients, recurrence was seen in 6 patients while the remaining 10 patients did not come back on follow-up (graph 1). Jaykar RD et al studied clinical profile, complications and different modalities utilized. One hundred patients within age group of 10 to 70 years and patients with varicose vein complications were included. 100 patients were treated for varicose veins of lower limb in our institute. Average age of the patients was 36 years. The youngest patient was of 15 years and oldest patient was 65 years old. Commonest presentation was dilated veins with itching and pigmentation in 65% of patients. Long saphenous vein was involved in 96% of limbs. Most common valve involved was SFJ. 25 patients were treated by sclerotherapy, residual varicosity seen in 4 patients. Only 5 patients (20%) developed residual varicosity after operative procedure.¹¹ Murad MH et al have reported long term safety and efficacy of surgery for varicose veins. Results of treatment of varicose veins with conventional surgery are excellent in long term with negligible complication rates.¹⁰⁻¹²

In the present study, in 31 patients undergoing surgical therapy, complete resolution at time of discharge was seen in 28 patients while residual varicosities were seen in 3 patients (graph 1).

Arora M presented data of management of Varicose Veins. 200 patients of varicose veins were analysed. Out of the 200 patients who were offered treatment only 25 varying degrees of recurrence were seen which were adequately dealt. Good results with foam sclerotherapy and radio frequency ablation were analysed. Varicose vein require multimodality treatment. Treatment options are shifting from invasive to less invasive modalities.¹³ Recanalization of a vein may

be due to either reflux from a tributary or an incompetent perforator. Similarly, if the main lumen is patent, reflux from the groin due to an accessory vein can also lead to failure and recurrence. Technical problems such as difficult access, problems in advancing the catheter, or a tortuous GSV can also all play a role in failure of the procedure or incomplete occlusion of the vein and ultimately result in recurrence.¹⁴

In a previous study, 25% of the cases underwent “phlebectomy” technique compared to 3 cases in this study. Trendelenberg procedure which was done in 15.9% cases in this study is supposedly to have most episodes of recurrence. Sub fascial ligation was done in 3 cases in this study compared to 8.6%–10.5% in other studies.¹⁵⁻¹⁸ Mallick R et al assessed varicose vein treatment patterns and their corresponding outcomes. During the 2-year follow-up period, among patients receiving interventional treatment, 54.7% of patients received additional interventional treatment (either with the same mode or a different mode from the initial treatment); 30.1% had >1 postintervention claim for symptomatic varicose veins (not including additional procedures) at 8 weeks; and 44.2% had >1 postintervention claim for symptomatic varicose veins at 1 year after the initial interventional therapy. A majority of the patients received conservative management.¹⁹

Joseph N et al²¹ advised conservative management methods such as limb elevation in 29.4% and compression stocking in 21.2%; among surgical methods, saphenous vein stripping was the most common surgical procedure which was performed in 23.5% cases. In a study carried by Nagaraj H et al,²⁰ in which all patients underwent surgical management, authors reported surgical line of treatment as an ideal approach for varicose vein due to low cases of recurrence and symptoms during follow-up. The present study also reported similar results as in 31 patients who underwent surgical therapy, complete resolution at time of discharge was seen in 28 patients while residual varicosities were seen in 3 patients whereas in 33 patients undergoing Sclerotherapy, complete response was seen in 17 patients, recurrence was seen in 6 patients while the remaining 10 patients did not come back on follow-up. However, further studies with large sample size and long follow-up is required to authenticate the results.

CONCLUSION

From the above results, the authors concluded that varicose veins are a frequently encountered pathology affecting the middle aged group with commonest presentation being unilateral limb involvement. Hence; a good clinical assessment with investigations is necessary for reducing the morbidity associated with it.

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