

Original Article

Surgical management of cases of varicose veins- A clinical study

Dr. Manish Goyal

Associate Professor, Department of General Surgery, Major SD Singh Medical College, Farrukhabad

ABSTRACT:

Background: The present study was conducted to assess cases of varicose veins. **Materials & Methods:** 72 patients with varicose veins were enrolled. Symptoms in patient and treatment given were recorded. The patients underwent standard colour Doppler ultrasonogram to find out system of involvement. **Results:** Symptoms were itching in 28, heaviness in 20, aching in 14, oedema in 10, ulcer in 11, bleeding in 18, pigmentation in 22 and bleeding in 5 cases. The difference was significant ($P < 0.05$). Duration of illness was 5 years in 15, 5-10 years in 40 and 10-15 years in 17 patients. Duration of hospital stay was 5-10 days in 34 and >10 days in 38 patients. Left side was involved in 11, right side in 40 and bilateral side in 21 cases. **Conclusion:** Trendelenburg's operation + stripping + sub fascial ligation was the surgical management of cases of varicose veins.

Key words: Pigmentation, Trendelenburg's operation, varicose veins.

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Corresponding Author: Dr. Manish Goyal, Associate Professor, Department of General Surgery, Major SD Singh Medical College, Farrukhabad, Uttar Pradesh, India

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INTRODUCTION

Varicose veins are superficial veins that have become enlarged and twisted. Typically they occur just under the skin in the legs. Usually they result in few symptoms but some may experience fullness or pain in the area.¹ Complications may include bleeding or superficial thrombophlebitis. When varices occur in the scrotum it is known as a varicocele while those around the anus are known as hemorrhoids.² Often there is no specific cause. Risk factors include obesity, not enough exercise, leg trauma, and a family history of the condition. They also occur more commonly in pregnancy. Occasionally they result from chronic venous insufficiency. The underlying mechanism involves weak or damaged valves in the veins.³ Diagnosis is typically by examination and may be supported by ultrasound. In contrast spider veins involve the capillaries and are smaller. Symptomatology of varicose veins varies greatly. Patients may present with complications like venous ulcer, bleeding or thrombophlebitis. In our study

heaviness in legs was the most common symptom, 75% patients presented with it. Heaviness, itching & cramping were the common symptoms.⁴

The term varicose is derived from the Latin word "varix" meaning bent and refers to dilated, tortuous and lengthened veins of lower limbs. Varicose veins of lower limb occur due to loss of valvular efficiency, which is a product of the resultant venous hypertension in standing position. Most commonly occurs in females compared to males according to western studies.⁵ The present study was conducted to assess cases of varicose veins.

MATERIALS & METHODS

72 patients with varicose veins were enrolled after obtaining their consent. Ethical approval for the study was obtained from institutional ethical committee. All enrolled patients were informed regarding the study and their consent was taken.

Data such as name, age, gender etc. was recorded. A thorough clinical examination was performed.

Symptoms in patient and treatment given were recorded. The patients underwent standard colour Doppler ultrasonogram to find out system of involvement. Result were tabulated and subjected to statistical analysis. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of patients

Total- 72		
Gender	Males	Females
Number	45	27

Table I shows that out of 72 patients, males were 45 and females were 27.

Table II Assessment of parameters

Parameters	Variables	Number	P value
Duration of illness (Years)	5	15	0.031
	5-10	40	
	10-15	17	
Duration of hospital stay (Days)	5-10	34	0.91
	>10	38	
Side	Left	11	0.05
	Right	40	
	Bilateral	21	

Table II, graph I shows that duration of illness was 5 years in 15, 5-10 years in 40 and 10-15 years in 17 patients. Duration of hospital stay was 5-10 days in 34 and >10 days in 38 patients. Left side was involved in 11, right side in 40 and bilateral side in 21 cases. The difference was significant (P< 0.05).

Graph I Assessment of parameters

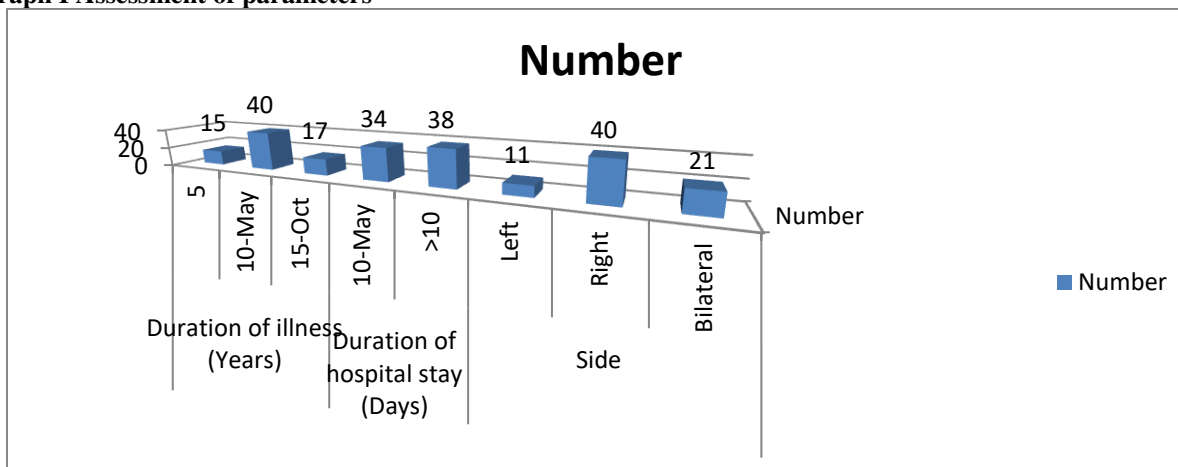


Table III Assessment of symptoms in patients

Symptoms	Number	P value
Itching	28	0.04
Heaviness	20	
Aching	14	
Oedema	10	
Ulcer	11	
Bleeding	18	
Pigmentation	22	
Bleeding	5	

Table III, graph II shows that symptoms were itching in 28, heaviness in 20, aching in 14, oedema in 10, ulcer in 11, bleeding in 18, pigmentation in 22 and bleeding in 5 cases. The difference was significant ($P < 0.05$).

Graph II Assessment of symptoms

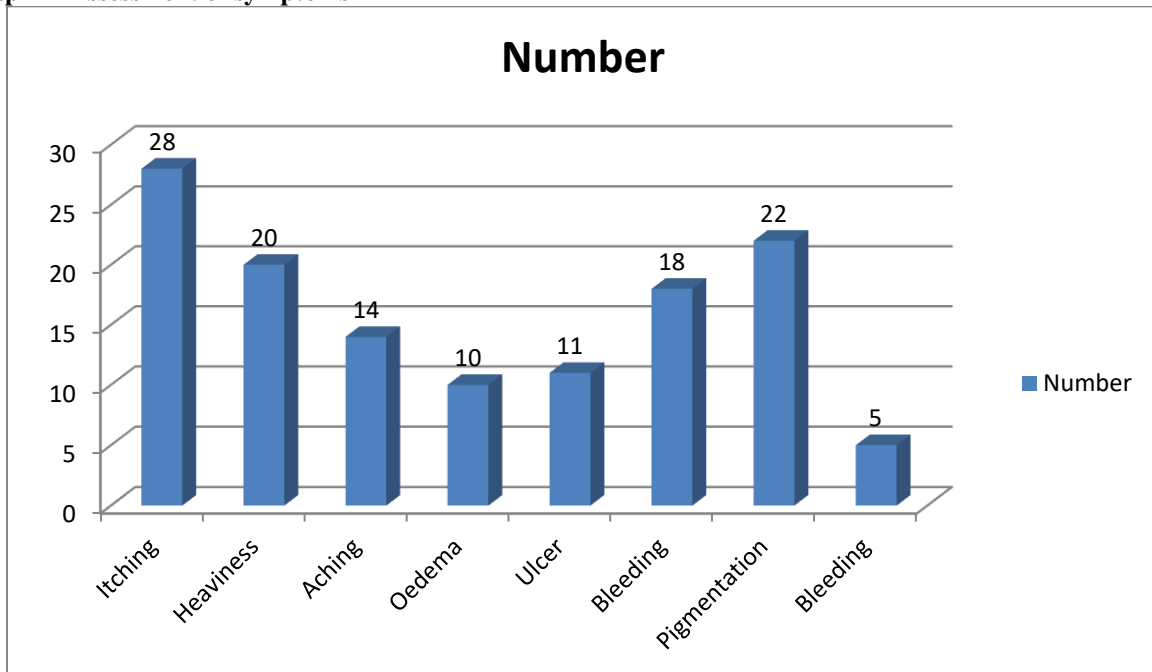


Table IV Management of cases

Management	Number	P value
Trendelenburg's operation + stripping + sub fascial ligation	56	0.001
Trendelenburg's operation +stripping	7	
Sub fascial ligation	9	

Table IV shows management given was trendelenburg's operation + stripping + sub fascial ligation in 56, Trendelenburg's operation +stripping in 7 and sub fascial ligation in 9 cases. The difference was significant ($P < 0.05$).

DISCUSSION

Varicose veins are very common, affected about 30% of people at some point in time. They become more common with age. Women are affected about twice as often as men.⁶ Varicose veins has been described throughout history and have been treated with surgery since at least A.D. 400. Traditionally, varicose veins were investigated using imaging techniques only if there was a suspicion of deep venous insufficiency, if they were recurrent, or if they involved the saphenopopliteal junction.⁷ This practice is now less widely accepted. People with varicose veins should now be investigated using lower limbs venous ultrasonography.⁸ The results from a randomised controlled trial on patients with and without routine ultrasound have shown a significant difference in recurrence rate and reoperation rate at 2 and 7 years of follow-up. Varicose veins are more common in women

than in men and are linked with heredity. Other related factors are pregnancy, obesity, menopause, aging, prolonged standing, leg injury and abdominal straining. Varicose veins are unlikely to be caused by crossing the legs or ankles. Less commonly, but not exceptionally, varicose veins can be due to other causes, such as post-phlebitic obstruction or incontinence, venous and arterio-venous malformations.⁹ The present study was conducted to assess cases of varicose veins.

In present study, out of 72 patients, males were 45 and females were 27. We found that duration of illness was 5 years in 15, 5-10 years in 40 and 10-15 years in 17 patients. Duration of hospital stay was 5-10 days in 34 and >10 days in 38 patients. Left side was involved in 11, right side in 40 and bilateral side in 21 cases. Van et al¹⁰ found that most of the patient came to the hospital because of pain and other complications, rather than cosmetic purpose. The patients were in the occupation

which required standing for long time had the higher of varicose vein. Severity of the symptoms is not proportional to the duration of varicose veins. The involvement of long saphenous vein is more common than the short saphenous vein. Majority of the patients had long saphenous vein involvement and had perforator incompetence indicating advanced hemodynamic malfunctions. Clinical examination or assessment was almost confirmative in diagnosis of the disease.

We found that symptoms were itching in 28, heaviness in 20, aching in 14, oedema in 10, ulcer in 11, bleeding in 18, pigmentation in 22 and bleeding in 5 cases. Kompally et al¹¹ in their study all patients were assessed by clinico etiological anatomical and pathological (CEAP) classification. Diagnosis was further confirmed by Duplex ultrasonography. Surgery was preferred for 34 out of 40 patients. Remaining 6 patients were treated conservatively because 3 patients were pregnant and 3 had deep vein thrombosis (DVT). Trendelenburg's operation with stripping was used in 30 out of 34 cases. Meticulous clinical examination and surgical technique followed by closely monitored post operative management is required to reduce morbidity of varicose veins. Trendelenburg's operation with subfascial ligation has given good results in our set up.

We observed that management given was trendelenburg's operation + stripping + sub fascial ligation in 56, Trendelenburg's operation +stripping in 7 and sub fascial ligation in 9 cases. Ratnam et al¹² study group consisted of 92 patients between 20 to 80 yrs., inclusive of both males (n=78) and females (n=14). They were assessed for severity of varicose veins by documenting a detailed history, clinical examination findings, imaging studies on a pre-structured case sheet and the result of surgery. It was found that majority of the patients were ≤ 60 yrs. and the left lower limb was predominantly affected in both sexes. 19.57% (n=18) cases had mild disease, 67.39% (n=62) cases had moderate disease and 13.04% (n=12) had severe disease. In the present study as per the VDS system, majority of the patients (n=51) 55.43% had grade III disability and 40.22% (n=37) of the patients had moderate grade of venous reflux, i.e. venous reflux duration.

CONCLUSION

Authors found that trendelenburg's operation + stripping + sub fascial ligation was the surgical management of cases of varicose veins.

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