

Original Research

Assessment of 82 cases of varicose veins- A clinical study

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ABSTRACT:

Background: Varicose veins of the lower limbs is a common clinical condition. The present study comprised of cases of varicose veins in 82 patients. **Materials & Methods:** 82 cases of varicose veins of both genders were assessed for venous clinical severity score [VCSS] and venous disability score [VDS] were evaluated by Questionnaire and Clinical Examination. **Results:** Age group 20-30 years had 6 male and 10 females, 30-40 years had 8 males and 14 females. 40-50 years had 7 males and 20 females and 50-60 years had 9 males and 8 females. Duration of hospital stay was 5-10 days in 28, 10-15 days in 40, 15-20 days in 14, side was left was 24, right side in 28 and both in 30 cases. VCSS was mild in 28, moderate in 42 and severe in 12 cases, VDS was 0 in 10, 1 in 20, 2 in 34 and 3 in 18 cases, VRS was mild in 18, moderate in 14 and severe in 50 patients. The difference was significant ($P < 0.05$). **Conclusion:** Maximum cases of varicose veins were seen in women and maximum patients had VCSS score moderate and VRS was severe.

Key words: Lower limbs, Varicose veins, Venous disability score

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INTRODUCTION

Varicose veins of the lower limbs is a common clinical condition. The term varicose is derived from the Latin word "varix" meaning bent and refers to dilated, tortuous and lengthened veins of lower limbs.¹ 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.²

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. Often there is no specific cause.³ 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. Diagnosis is typically by examination and may be supported by ultrasound. In contrast spider veins involve the capillaries and are smaller.⁴

Venous reflux is a significant cause. Research has also shown the importance of pelvic vein reflux (PVR) in the development of varicose veins. Varicose veins in the legs could be due to ovarian vein reflux.⁵ Whiteley and his team reported that both ovarian and internal iliac vein reflux causes leg varicose veins and that this condition affects 14% of women with varicose veins or 20% of women who have had vaginal delivery and have leg varicose veins. In addition, evidence suggests that failing to look for and treat pelvic vein reflux can be a cause of recurrent varicose veins.⁶ The present study comprised of cases of varicose veins in 82 patients.

MATERIALS & METHODS

The present study comprised of 82 cases of varicose veins of both genders. They agreed to participate in the study with their written consent.

Data such as name, age, gender etc. was recorded. Venous clinical severity score [VCSS] and venous disability score [VDS] were evaluated by Questionnaire and Clinical Examination. Colour Doppler examination was performed and parameters such as grading of venous reflux at SFJ, competency

of SPJ, patency and competency of deep venous system of lower limb.

Based on colour doppler examination, patients were categorized into three groups. The three groups were divided as mild, moderate and severe according to the scores 0-9, 10-20, 21-30 respectively. According to the duration elicited by venous doppler examination, they were grade I, grade II, grade III. Normally venous reflux is absent at SFJ. Presence of reflux is

considered as abnormal. The duration of reflux was measured and graded. All patients underwent surgery by the following methods such as Trendelenburg method, i.e. flush ligation of sapheno-femoral junction, subfascial ligation of perforators, segmental excision of varicosities, sapheno-popliteal ligation and split skin graft according to the clinical severity. Results thus obtained were assessed statistically. P value less than 0.05 was considered significant.

RESULTS

Table I Distribution of patients

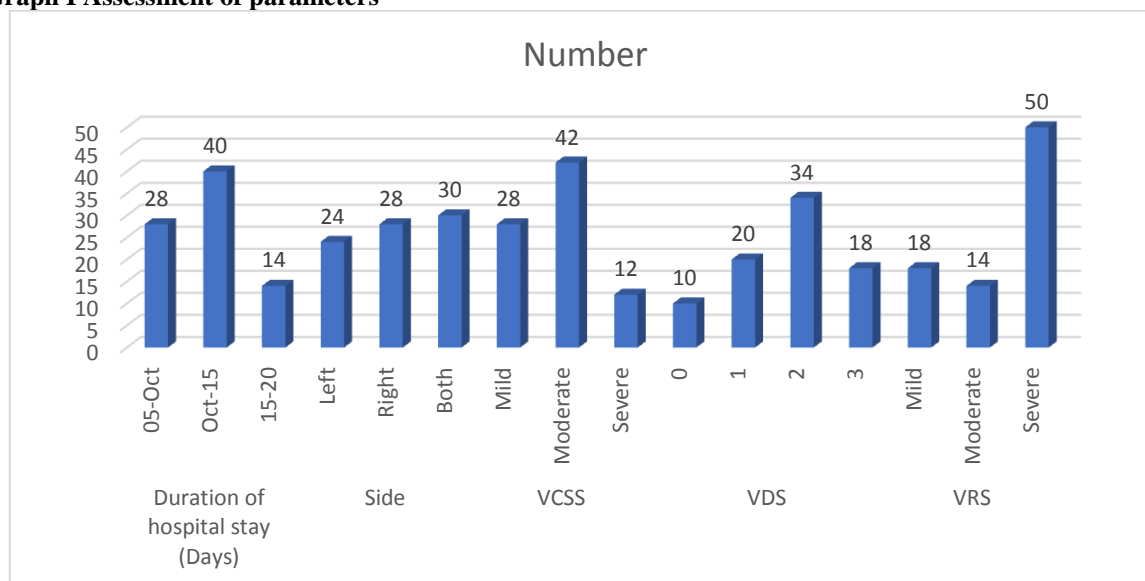
Age group (Years)	Males	Females	P value
20-30	6	10	0.09
30-40	8	14	0.05
40-50	7	20	0.01
50-60	9	8	0.91
Total	30	52	

Table I shows that age group 20-30 years had 6 male and 10 females, 30-40 years had 8 males and 14 females. 40-50 years had 7 males and 20 females and 50-60 years had 9 males and 8 females. The difference was significant ($P < 0.05$).

Table II Assessment of parameters

Parameters	Variables	Number	P value
Duration of hospital stay (Days)	5-10	28	0.04
	10-15	40	
	15-20	14	
Side	Left	24	0.80
	Right	28	
	Both	30	
VCSS	Mild	28	0.01
	Moderate	42	
	Severe	12	
VDS	0	10	0.02
	1	20	
	2	34	
	3	18	
VRS	Mild	18	0.01
	Moderate	14	
	Severe	50	

Table II, graph I shows that duration of hospital stay was 5-10 days in 28, 10-15 days in 40, 15-20 days in 14, side was left was 24, right side in 28 and both in 30 cases. VCSS was mild in 28, moderate in 42 and severe in 12 cases, VDS was 0 in 10, 1 in 20, 2 in 34 and 3 in 18 cases, VRS was mild in 18, moderate in 14 and severe in 50 patients. The difference was significant ($P < 0.05$).

Graph I Assessment of parameters

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. Varicose veins has been described throughout history and have been treated with surgery since at least A.D. 400.⁷ 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. This practice is now less widely accepted. People with varicose veins should now be investigated using lower limbs venous ultrasonography. 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.⁸

There is increasing evidence for the role of incompetent perforator veins (or "perforators") in the formation of varicose veins and recurrent varicose veins. Varicose veins could also be caused by hyperhomocysteinemia in the body, which can degrade and inhibit the formation of the three main structural components of the artery: collagen, elastin and the proteoglycans. Homocysteine permanently degrades cysteine disulfide bridges and lysine amino acid residues in proteins, gradually affecting function and structure. Simply put, homocysteine is a 'corrosive' of long-living proteins, i.e. collagen or elastin, or lifelong proteins, i.e. fibrillin.⁹ The present study comprised of cases of varicose veins in 82 patients.

In present study, age group 20-30 years had 6 male and 10 females, 30-40 years had 8 males and 14 females. 40-50 years had 7 males and 20 females and 50-60 years had 9 males and 8 females. Ratnam et al¹⁰ conducted a study which 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. Using the VCSS system, 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.

We found that duration of hospital stay was 5-10 days in 28, 10-15 days in 40, 15-20 days in 14, side was left was 24, right side in 28 and both in 30 cases. VCSS was mild in 28, moderate in 42 and severe in 12 cases, VDS was 0 in 10, 1 in 20, 2 in 34 and 3 in 18 cases, VRS was mild in 18, moderate in 14 and severe in 50 patients. In study conducted by Tuchsén F et al¹¹, men working mostly in a standing position, the risk ratio for varicose veins was 1.85 in a comparison with all other men. The corresponding risk ratio for women was 2.63 (95% CI 2.25-3.02). Thus, working in a standing position is associated with subsequent hospitalization due to varicose veins for both men and women.

Vasquez CF et al¹² studied to identify the usefulness of VCSS system in varicose vein risk assessment and to evaluate the changes after varicose vein treatment in 68 patients. The study concluded that VCSS was useful in the above measurement.

CONCLUSION

Authors found that maximum cases of varicose veins were seen in women and maximum patients had VCSS score moderate and VRS was severe.

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