

CLINICAL PRESENTATION OF VARICOSE VEIN- A HOSPITAL-BASED CROSS-SECTIONAL STUDY

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ABSTRACT

INTRODUCTION

Varicose veins are one of the major problems with patients presenting with symptoms of heaviness, tingling sensation, swelling, aching, restless legs, cramps and itching. Other clinical conditions with which patients presents are pigmentation of lower limbs, healed or active venous ulcers, lipodermatosclerosis. We studied various clinical presentations of varicose veins.

MATERIAL AND METHODS

A cross-sectional observational study was done in all patients presented to UCMS Teaching Hospital from 2021 to 2022. The primary objective was to assess various clinical signs and symptoms of patients with varicose veins.

RESULTS

Out of 260 patients, 172 were males and 88 were females. The mean age was 43.87 ± 14.31 years. Patients with occupation involving long standing had more incidence of varicose veins with heaviness and aching as the most common clinical presentation.

CONCLUSION

Security guard, cook, housewife, teacher, farmer occupational people seem to be affected. Heaviness and aching are more common symptoms, least common clinical presentation were bleeding, thrombosis, and ulceration.

KEYWORDS

Varicose vein, Venous ulcer, Lipodermatosclerosis

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INTRODUCTION

Varicose veins are responsible for a wide range of lower limb symptoms such as heaviness, swelling, aching, restless legs, cramps, itching, and tingling.¹ Varicose veins (VVs) are described as tortuous and dilated palpable veins, which are more than 3 mm in diameter.² Varicose veins are present in 20 to 25% of adult females and 10 to 15% of men in western countries. Dark complexion, costume habits of covering legs and disregard for aesthetic appearance and also delay in seeking for medical help causes to low incidence of reporting and protracted morbidity.³

Varicose veins are one of the most common presenting diseases in our hospital with majority of patients occupation being cook and security guards.⁴ Through a variety of pathophysiological mechanisms, weakness develops in the vein wall that results in varicosity over time. Varicosities typically form in the greater and lesser saphenous veins but also develop in branch vessel.

Venous hypertension, venous valvular incompetence, structural changes in the vein wall, inflammation, and alterations in shear stress are the major pathophysiological mechanisms resulting in varicose veins. Venous varicosities can be categorized according to the CEAP classification, which considers class (C0–6), etiology (E), anatomy (A), and pathophysiology (P).⁵

CEAP classification⁶

1. **C: Clinical categories are recognized as**
 - C0 No visible or palpable signs of venous disease
 - C1 Telangiectasia or reticular veins
 - C2 Varicose veins; distinguished from reticular veins by a diameter of 3mm or more
 - C3 Edema
 - C4 Changes in skin and subcutaneous tissue secondary to CVD
 - C4a Pigmentation or eczema
 - C4b Lipodermatosclerosis or atrophie blanche
 - C5 Healed venous ulcer
 - C6 Active venous ulcer
- S: Symptomatic
- A: Asymptomatic
2. **E: Etiological classification**
 - Ec: Congenital
 - Ep: Primary
 - Es: Secondary
 - En: No venous cause identified.
3. **A: Anatomical classification**
 - As: superficial veins
 - Ap: perforating veins
 - Ad: deep veins
 - An: no venous location identified
5. **P: Pathophysiology classification**
 - Pr: Reflux
 - Po: obstruction
 - Pr,o: reflux and obstruction
 - Pn: no venous pathophysiology identifiable

MATERIAL AND METHODS

This is a cross-sectional observational study carried out in UCMS-TH, Bhairahawa from 2021 to 2022. Ethical clearance was taken from Institutional Review Committee of UCMS-TH (UCMS/IRC/001/23). The cases presented in UCMS OPD Department with signs and symptoms of varicose veins were enrolled in the study. Patients refusing consent and who are on anticoagulation were excluded from our study.

Detailed history was taken and after clinical examinations patients are classified according CEAP classifications and managed according to the standard treatment protocol.

RESULTS

The total number of patients included in the study were 260 in which 172 were males and 88 were females. The mean age was 43.87±14.31 years. Security guard, cook housewife, teacher, farmer occupational people seem to be affected more with varicose vein in decreasing order in our area (Table 1).

Clinically, heaviness and aching are more common symptoms followed by pigmentation and swelling. Least common clinical presentation are bleeding thrombosis and ulceration (Table 2).

Table 1. Frequency distribution of socio-demographic variables

		Frequency	Percentage (%)
Gender	Male	172	66.2
	female	88	33.8
Age (years)	43.87±14.31		
Occupation	Security Guard	49	18.8
	Cook	44	16.9
	House wife	39	15
	Teacher	36	13.8
	Farmer	35	13.5
	Student	24	9.2
	Driver	18	6.9
	Businessman	15	5.8

Table 2. Frequency distribution of signs and symptoms

Symptoms	Frequency	Percentage (%)
Heaviness	229	22.7
Aching	217	21.5
Pigmentation	168	16.6
Swelling	160	15.8
Itching	101	10
Cramps	58	5.7
Ulceration	53	5.2
Thrombosis	21	2.1
Bleeding	3	0.3

DISCUSSION

Varicose vein is a common surgical problem. The incidence of varicose veins varies among different populations. Patients with large varicose veins or patients with skin changes should be offered treatment specifically designed to avoid future ulceration. The presence of symptoms such as heaviness, aching or swelling and clinical or ultrasound evidence of saphenous vein reflux is generally accepted as indications for surgery.

Bradbury A et al reported that all these symptoms tended to increase with age and were significantly more common in women than in men. The commonest symptom was aching in women (53.8%) and cramps in men (34.0%). The least common symptom was tingling in women (19.8%) and a feeling of swelling in men (9.2%).¹ In our study men (66.2%) are affected more compared to women (33.8%). Heaviness and aching are more common symptoms both in men and women.

Kompally GR et al reported that symptomatology of varicose veins varies greatly. Patients may present with complications like venous ulcer, bleeding, or thrombophlebitis. In their study, heaviness in legs was the most common symptom and 75% patients presented with it. Heaviness, itching & cramping were the common symptoms.³ In our study ulceration, cramping, thrombosis and bleeding were rare clinical presentation.

Ghosh SK et al in 2021 stated that it is generally agreed that varicose veins affect from 40 to 60% of women and 15 to 30% men. The common symptoms of varicose veins are unsightly visible veins, pain, aching, swelling (often worse on standing or at the end of the day), itching, skin changes, ulceration, thrombophlebitis, and bleeding. Edema, varicose eczema or thrombophlebitis, ulcers (typically found over the medial malleolus), Most common complications of varicose vein include aching pain, leg heaviness, and easy leg fatigue. Other complications are superficial thrombophlebitis, ankle hyperpigmentation, lipodermatosclerosis, atrophie blanche, and venous ulcer. Complications that require urgent management are superficial bleeding and superficial venous thrombosis. Rarely superficial venous thrombus may propagate to deep venous system.⁷

CONCLUSION

Varicose veins are a major cause of morbidity in both male and female populations especially in professions including long hours of standing such as security guard, cook, teachers etc. Heaviness and aching alongwith pigmentations are more common clinical presentations, occasional bleeding, ulceration and thrombosis may complicate the varicose vein and required special attention.

CONFLICT OF INTEREST

None

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