World Journal of Pharmaceutical research

Volume 3, Issue 1, 418-425. Research Article ISSN 2277 – 7105

A CLINICAL STUDY OF VARICOSE VEINS OF LOWER LIMBS IN A TERTIARY CARE HOSPITAL IN AJMER.

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Article Received on
28 September 2013

Revised on 30 October 2013,
Accepted on 23 November 2013

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ABSTRACT

Veins that undergo dilatation, elongation and tortuosity are called varicose veins. Common risk factors for the development of varicose veins include age older than50 yrs, female sex hormones, heredity, gravitational hydrostatic forces and hydrodynamic force due to muscular contraction , diffusion block in microcirculation[4], escape of fibrinogen due to increase in the endothelial pore size. Various complications associated with varicose veins include thrombophlebitis, eczema, haemorrhage , varicose ulcers. **OBJECTIVES** : The aim of this study is to study the cases of varicose veins in relation to age, sex, occupation and to study the predisposing factors leading to varicose veins and what are the common symptoms and complications associated with varicose veins and its management.

MATERIALS AND METHODS 50 patients of varicose veins who were admitted in J L N hospital,Ajmer were included in this study.Details pertaining to their age, sex occupation, common symptoms, predisposing factors and complications were noted. All the clinical tests, relevant investigations pertaining to blood, Doppler study and other imaging studies were done.

RESULTS: Varicose veins were common in younger age group persons and maximum number of cases were seen in 21-30year age group and more common in males as compared to females . The most common occupation associated with varicose veins were labourers and farmers which required prolonged standing. The most common symptom associated was dilated and tortuous veins seen in 100% cases in present study followed by dull aching pain(60%). Ulcers and dermatitis (32% each) were the most common complication of varicose veins with prolonged standing as the most common predisposing factor . Left lower limb was involved in 22 cases slightly more than right limb which was involved in 20 cases whereas 8 cases showed involvement of both lower limbs. Long saphenous system was seen to be involved in 46 cases whereas isolated short saphenous system was involved in 3 cases. Involvement of both the cases was seen in 1 case.

Keywords: Varicose veins, saphenous venous system, varicose ulcers.

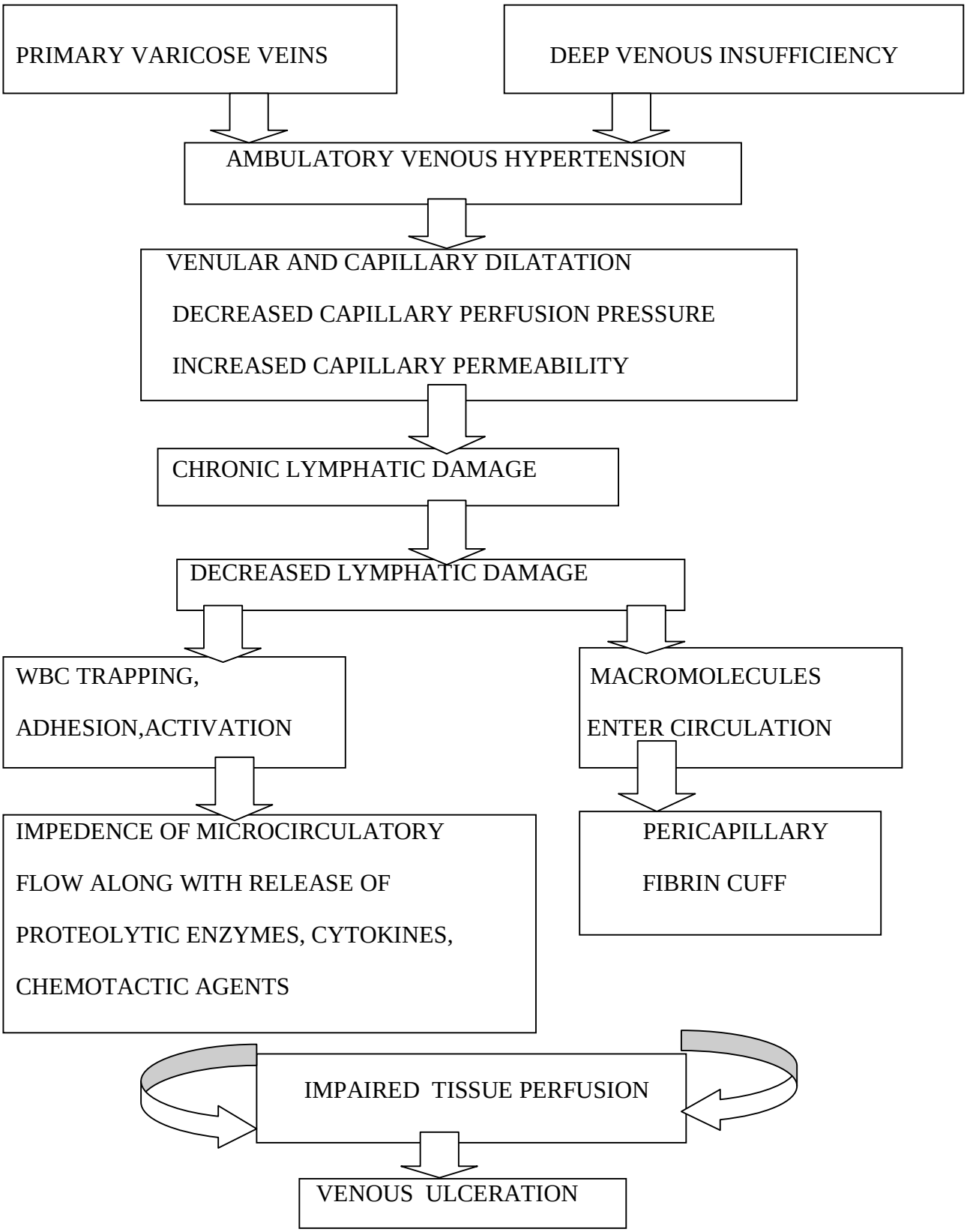
INTRODUCTION

Veins that undergo dilatation, elongation and tortuosity are called varicose veins. An early account of varicose vein is in PAPYRUS OF EBERS(1550BC) who mentioned varicose veins. Hippocrates(460-377BC) elaborated associated ulcers on legs with enlarged veins. He advocated humoral therapy as an aetiology for varicose veins and advised compression bandage and puncturing of varicose veins in the treatment.[1]

A significant increase in the collagen content and reduction in the elastin content of varicose vein was reported by Gandhi et al. [2] Common risk factorsfor the development of varicose veins include age older than50 yrs, female sex hormones, heredity, gravitational hydrostatic forces and hydrodynamic force due to muscular contraction [3], diffusion block in microcirculation[4], escape of fibrinogen due to increase in the endothelial pore size. [5]Progesterone released by the corpus luteum stabilizes the uterus by causing relaxation of smooth muscle fibres. [6,7] This effect directly influences venous function.Various complications associated with varicose veins include thrombophlebitis [8], eczema, haemorrhage[7] , varicose ulcers[1,7,29]. Hoare et al reported that in some patients with primary varicose veins who had venous ulcer , normal normal deep venous system could be seen, whereas Cray in 1868 stated the importance of venous thrombosis in causation of venous ulcers.

PATHOPHYSIOLOGY OF MICROCIRCULATORY CHANGES

IN VENOUS HYPERTENSION



AIMS AND OBJECTIVES

1. To study the cases of varicose veins in relation to age, sex, occupation.
2. To study the predisposing factors leading to varicose veins.
3. To study the common symptoms aand complications associated with varicose veins and its management.

MATERIALS AND METHODS

After due ethical clearance and consent 50 patients of varicose veins who were admitted in J L N hospital,Ajmer were included. Details pertaining to their age, sex occupation,common symptoms, predisposing factors and complications were noted. All the clinical tests, relevant investigations pertaining to blood, Doppler study and other imaging studies were done.

OBSERVATION AND RESULTS

Varicose veins were common in younger age group persons and maximum number of cases were seen in 21-30year age group as shown in table-1.

Table -1 –Age wise incidence of varicose veins

Age (in years)	No. of cases	Percentage
10-20	7	14%
21-30	20	40%
31-40	12	24%
41-50	5	10%
51-60	3	6%
61-70	3	6%

In our study we observed that varicose veins were more common in males as compared to females as shown in table -2

Table -2 –Sex wise distribution of incidence of varicose veins

Sex	No. of cases	Percentage
Male	38	76%
Female	12	24%

The most common occupation associated with varicose veins were labourers and farmers which required prolonged standing as shown in table-3.

Table – 3-Shows occupation associated with varicose veins

Occupation	No. of cases	Percentage
Labourer	15	30%
Farmer	15	30%
Household work	11	22%
Others	9	18%

The most common symptom associated was dilated and tortuous veins seen in 100% cases in present study followed by dull aching pain(60%) as shown in table-4.

Table-4 Shows symptoms associated with varicose veins

Symptoms	No. of cases	Percentage
Tortuous dilated veins	50	100%
Dull pain	30	60%
Ulcer	16	32%
Itching	16	32%
Pigmentation	16	32%

The most common complication of varicose veins in our study were ulcers and dermatitis (32% each). Table-5 shows the complications associated with varicose veins seen in our study.

Table -5 Complications of varicose veins

Complications	No. of cases	Percentage
Ulceration	16	32%
Dermatitis	16	32%
Thrombophlebitis	10	20%
Osteomyelitis	Nil	-
Haemorrhage	Nil	-
Walking difficulty	12	24%

The most common predisposing factor associated with varicose veins was prolonged standing which was commonly seen in labourers. Two patients gave family history of varicose veins.

Table-6 -Predisposing factors seen in varicose veins.

Predisposing factors	No. of cases	Percentage
Prolonged standing	15	30%
Hereditary	2(10-20 age group)	4%

In our study left lower limb was involved in 22 cases slightly more than right limb which was involved in 20 cases whereas 8 cases showed involvement of both lower limbs.

Table7- Limb involvement in varicose veins.

Limb involved	No. of cases	Percentage
Right	20	40%
Left	22	44%
Both	8	16%

Long saphenous system was seen to be involved in 46 cases whereas isolated short saphenous system was involved in 3 cases. Involvement of both the cases was seen in 1 case.

Table-8 Involvement of system in varicose veins.

System involved	No. of cases	Percentage
Long saphenous system	46	92%
Short saphenous system	3	6%
Both long and short saphenous system	1	2%
Perforator involved	16	32%

DISCUSSION

In our study most of the patients were in the age group 21-30 yrs. Edinburgh vein study by Braudbura A. et al (10) reported that prevalence of many symptoms increased with age in both sexes.

Our study showed a sex ratio (male:female) 3.1:1 , while Scurr J. H. et al(11) reported male : female ratio of 1:2.63, Dick (12) reported male : female ratio of 1:3.5, De Takats (13) reported male: female ratio of 1: 1.5.

The occupation in this study which is most commonly associated with varicose veins was farmers and labourers whereas Kontosic A.U. et al(14) reported that varicose veins were more prevalent in the trade workers and catering persons as compared to office workers.

This study shows that the most common symptom was dilated tortuous (100%) followed by pain(60%), ulcer(32%), itching(32%). Lofgren E. P. et al (15) found that pigmentation was present in 15.7% of patients and ulcers were present in 83% of the patients.

The most common complication seen in our study was ulceration while the most common predisposing factor was occupation associated with prolonged standing(15 cases) . 4% stated that family history was a significant risk factor for the development of varicose veins but pregnancy was the major predisposing factor according to study by Dodd and Socket(1). According to a study by Dodd H. et al (17) around 10% of the patients of varicose veins showed evidence of deep venous thrombosis.

20 patients (40%) in this study had right lower limb involved,22 no. of patients(44%) had left lower limb involved whereas 8(16%) patients had bilateral lower limb involvement whereas Edinburgh study (10) showed no significant difference between the right and left leg involvement.

In our study 46(92%) patients had long saphenous system involvement whereas 3(6%) patients showed involvement of short saphenous vein and 1(2%) patient showed involvement of both long and short saphenous system.

AKNOWLEDGEMENTS

The authors would like to thank Dr Rekha Porwal and entire surgery department of JLN Medical college.

Conflicts of interest: The authors declare that they have no competing interests

Funding: Not applicable

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