

A CLINICO-EPIDEMIOLOGICAL STUDY OF VARICOSE VEINS

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ABSTRACT

Venous diseases of lower limb remains common affecting 20% of adult population. Study was conducted on 50 consecutive patients with primary varicose veins at RMMCH, Chidambaram. All cases of varicose veins presenting to the OPD were subjected to duplex scan to rule out secondary causes. In this study age incidence was maximum in the group 21-40 which accounted for 52% of patients followed by 18 patients (36%) in the age group 41-60. In this study most of the patients were agriculturists (78%) by occupation who admitted of having been exposed to prolonged hours of standing, about 10 hours per day. This may point towards the possibility of prolonged erect posture being the aetiology for varicose veins

Keywords: Epidemiological Study, Varicose Veins

1.INTRODUCTION

Venous diseases of lower limb remains common affecting 20% of adult population. In general these cause no major life threatening illness and yet the morbidity of venous ulceration places a substantial burden on the community health care and results in expenditure of large sums on daily management of this problem (Weiss, 1994). Technological advances in particular colour duplex ultrasonography now offers improved diagnostic accuracy in patients with venous disease. This should be the minimum investigation before undertaking any operation for venous diseases of the lower limb. Complex venous disease may be comprehensively investigated using duplex ultrasound imaging combined with a plethysmographic method of assessing venous function. Sclerotherapy remains an effective treatment for selected patients presenting with varices in the absence of major truncal incompetence (Weiss and Weiss, 1993). During surgical treatment, stripping of long saphenous vein is preferable to sapheno-femoral ligation alone. A better clinical outcome will be achieved particularly in patients with chronic venous insufficiency, when all sources of venous reflux have been controlled (Gundersen and Hauge, 1969).

2.METHODOLOGY

Study was conducted on 50 consecutive patients with primary varicose veins at RMMCH, Chidambaram. All cases of varicose veins presenting to the OPD were subjected to duplex scan to rule out secondary causes. Patients with sapheno femoral incompetence were treated with sapheno femoral junction ligation and stripping of long saphenous vein. Patients with sapheno popliteal junction incompetence were treated with sapheno popliteal junction ligation with or without stripping of short saphenous vein. Patients with perforator incompetence were treated with subfascial ligation of perforators.

3.RESULTS

In this series, age varies from 18 to 62 years, 4 patients (8%) were less than 20 years of age, 26 (52%) were in the age group 21-40, 18 patients (36%) were in the 41-60 age group, 2 (4%) were more than 60 yrs of age. 47 (94%) were males and 3 (6%) were females, 39 (78%) patients were agriculturists, who admitted of having been exposed to prolonged hours of standing. 6 (12%) were students, 3 (6%) housewives, 2 (4%) businessmen. Of the 70 limbs involved, 28 (40%) had pigmentation, 15 (21.4%) had ulceration, 14 (20%) had dermatitis, 8 (11.4%) eczema, 6 (8.5%) had lipodermatosclerosis, 1 (1.4%) had thrombophlebitis and intradermal venules. Among the 50 cases studied, 70 limbs showed varicose veins, of which 32 limbs had long saphenous vein and communicating system involvement (45.7%). 20 limbs had only long saphenous vein involvement

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(28.5%), 9 limbs had communicating system involvement (12.8%), 4 limbs had long saphenous and short saphenous involvement (5.7%). 2 limbs had short saphenous and communicating system involvement (2.8%). 2 limbs had short saphenous involvement only (2.8%). One limb had short saphenous, long saphenous and communicating system involvement (1.4%). All patients with bilateral disease had symptoms only in one limb. The limb, which was symptomatic, was subjected to surgery and the other limb was conserved. Of the 70 limbs 48 (68.5%) were subjected to surgery. 20 (28.5%) underwent conservative treatment and 2 (2.8%) underwent sclerotherapy. Of the 48 limbs that underwent surgery 26 (54.1%)

underwent saphenofemoral flush ligation with stripping of LSV and subfascial ligation of perforators, 10 (20.8%) underwent saphenofemoral flush ligation and stripping, 4 (8.3%) underwent saphenofemoral flush ligation with stripping of LSV and saphenopopliteal junction ligation, 3 (6.25%) underwent subfascial ligation of perforators, 2 (4.1%) underwent saphenopopliteal junction ligation with subfascial ligation of perforators, 1 (2%), limb underwent saphenofemoral flush ligation with stripping of LSV, saphenopopliteal junction ligation and subfascial ligation of perforators. Of the 48 limbs operated, 6(12.5%) developed haematoma, 2 (4.16%) developed saphenous neuritis and 2 (4.16%) developed infection



Fig 1. Long saphenous varicosity



Fig 2. Varicose ulcer



Fig 3. Intra operative photograph of Sapheno-

Age group	Frequency	Percent
<20	4	8
21-40	26	52
41-60	18	36
Above 60	2	4
Total	50	100

Table-2: Sex distribution

Sex	Frequency	Percent
Male	47	94
Female	3	6
Total	50	100

Table-3: Occupation distribution

Occupation	Frequency	Percent
Agri	39	78
HW	3	6
Bui	2	4
St	6	12
Total	50	100

Table 4. Distribution of limbs based on their association with complications

Complications	No of limbs	Percent
With	29	41.43
Without	41	58.57
Total	70	100

Table 5. Distribution of various systems

Systems	left	right	total	percent
LSV+CS	18	14	32	45.71
LSV+SSV	2	2	4	5.71
SSV+CS	0	2	2	2.86
LSV+SSV+CS	1	0	1	1.43
CS	5	4	9	12.86
LSV	10	10	20	28.57
SSV	2	0	2	2.86
total	38	32	70	100
Chi square	34.316	18.0	61.486	
P	P<.000(S)	P<.000(S)	P<.000(S)	

Table 6. Distribution of symptoms in various systems

Systems	Pain	Edema	Ulcer	Disfigurement	Cramps
LSV+CS	24	7	8	18	0
LSV+SSV	3	0	1	2	0
SSV+CS	1	0	1	1	0
LSV+SSV+CS	1	0	1	1	0
CS	4	2	1	3	0
LSV	10	3	2	4	0
SSV	2	0	0	0	0
total	45	12	14	29	0

Complications:	Right	Left	Total
Hemorrhage	0	0	0
Thrombophlebitis	0	1	1
Intra dermal venules	0	1	1
Deep vein thrombosis	0	0	0
Pigmentation	11	17	28
Dermatitis	6	8	14
Varicose eczema	2	6	8
Lipodermatosclerosis	2	4	6
Ulceration	7	8	15
Periostitis	0	0	0
Stiffness	0	0	0
Equinus deformity	0	0	0
Chi square	10.214	11.535	20.901
P	<.037(S)	<.021(S)	<.000(S)

Table 8 . Distribution of Operations

Operation:	No of limbs	Percent
SFFL+S+SFLP	26	54.2
SFFL+S+SPJL	4	8.3
SPJL+SFLP	2	4.2
SFFL+S+SPJL+SFLP	1	2.1
SFLP	3	6.2
SFFL+S	10	20.8
SPJL	2	4.2
Total	48	100

Table 9. Follow-up

Follow-up	No of patients	Percent
Cured	23	46
Did not turn up	27	54
Total	50	100

4.DISCUSSION

The incidence of varicose veins in females is three times more than in males. In this study of 50 patients, only 3 patients were females (6%). In this study age incidence was maximum in the group 21-40 which accounted for 52% of patients followed by 18 patients (36%) in the age group 41-60. In this study most of the patients were agriculturists (78%) by occupation who admitted of having been exposed to prolonged hours of standing, about 10 hours per day. This may point towards the possibility of prolonged erect posture being the aetiology for varicose veins. Among the 70 limbs studied, commonest system involved was long saphenous and communicating system (32 limbs, 45.7%), next was long saphenous involvement alone (20, 28.5%), least involved was long, short and communicating system (1 limb, 1.4%). Left side was found to be involved more than the right side. Among the various symptoms with which the patients presented, pain was the commonest symptom seen in 45 limbs (64.2%) followed by disfigurement 29 limbs (41.4%), ulcer 14 limbs (20%) oedema 12 limbs (17.1%). None of the

patients had cramps. Of the various systems involved, limbs with long saphenous and communicating system involvement had more symptoms than any other (pain 24 limbs, 75%, disfigurement 18 limbs 56.2%, ulcer 8 limbs 25%, oedema 7 limbs 21.8%), followed by limbs with long saphenous and short saphenous involvement and long saphenous involvement alone. In a study conducted by Sakurai et al. (1998), it was found that, of the 266 limbs examined, long saphenous and communicating system involvement was seen in 118(44%) and long saphenous involvement alone was seen in 56(21%). They showed that these were the commonest patterns involved. They also showed that limbs with long saphenous and short saphenous involvement or long saphenous and communicating system involvement were associated with severe venous disease. Among the various complications pigmentation was the commonest seen in 28 limbs (40%) followed by ulceration 15 limbs (21.4%), dermatitis 14 limbs (20%), eczema 8 limbs (11.4%), lipodermatosclerosis 6 limbs (8.5%) haemorrhage, DVT, periostitis, stiffness and equinus were not seen in any of them. Among the various modalities of treatment, 48 of 70 limbs were subjected to surgery, 20 were conserved and 2 were subjected to sclerotherapy. The commonest operation performed was saphenofemoral flush ligation with stripping of LSV and subfascial ligation of perforators in 26 limbs (54.1%), followed by saphenofemoral flush ligation with stripping of LSV 10 limbs (20.8%). Least common operation was saphenofemoral flush ligation with stripping of LSV with saphenopopliteal junction ligation with subfascial ligation of perforators (2%). Postoperative compression was followed routinely for all patients to prevent haematoma formation. All patients were advised to use elastic crepe bandage for 2 months after discharge from the hospital.

Among the postoperative complications haematoma, was the commonest (6 limbs 12.5%) probably due to loose application of postoperative compression bandage. 2 limbs had saphenous neuritis and 2 limbs had infection. Low incidence of neuritis could be because of good surgical technique and due to the fact that most patients were agriculturists who were not bothered by slight impairment of sensation. Low incidence of infection could be due to good antibiotic coverage coupled with sterile theatre technique. The complications responded well to surgical treatment. Among 14 patients with varicose ulcer 6 needed grafting, rest healed without any intervention. Of the 50 patients 23 came for follow up and had no recurrence. 2 patients were subjected to sclerotherapy who never turned up.

5.CONCLUSIONS

50 patients of primary varicose veins of lower limbs were admitted to RMMCH and study of these patients revealed,

- 1) Commonest age group affected is 21-40 years.
- 2) Definite relationship exists between occupation involving prolonged standing and primary varicose veins.
- 3) The involvement of long saphenous and communicating system is commonest followed by long saphenous involvement alone.
- 4) Pain is the commonest symptom.
- 5) Patients with involvement of long saphenous and communicating system or long saphenous and short saphenous system had more symptoms than the others.
- 6) Commonest complication is pigmentation.
- 7) Complications of varicose veins responded well to operative treatment. Results of surgical treatment are good.
- 8) Mortality is nil

6.BIBLIOGRAPHY

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