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General Surgery

A STUDY OF CLINICAL ASSESSMENT AND EVALUATION OF LOWER LIMB VARICOSE VEINS

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ABSTRACT

OBJECTIVES : To the study the relation between site of incompetence and complications, pattern of complications, surgical management and its outcome for lower limb varicose veins.

METHODS: A total 42 number of patients (46 limbs) with primary varicose veins admitted, investigated, operated and fallowed up. Final outcome evaluated.

RESULTS: In the study it was noted that the varicose vein affect the younger adult and middle age population. (20 to 60 yrs). Majority of the patient were male (85.71%) majority of the patients sought medical help for one or the other complications (78%) Long saphenous vein involvement was seen in 90.5% of the patients and both LSV and SSV involvement in 9.5%. A greater portion of the patients had combined valvular incompetence (69.56%). Saphenofemoral flush ligation with stripping appeared to be best option for LSV truncal involvement with no recurrence in one year follow-up.

CONCLUSION: Majority of the patients presents with complications of varicose vein with combined valvular incompetence and surgical treatment with stripping of path of incompetence (i.e. LSV trunk) appear to be best option for lower limb varicose vein with LSV truncal involvement under our settings.

KEYWORDS :

INTRODUCTION

Varicose veins have been recognized as chronic disorder since ancient times. Hippocrates discussed them 2500 years ago. It involves at least 1 out of 5 in the world and with increasing population, increased life span and change in life style the problem is ever growing. It is in the developed countries where attire reveals more than it conceals, patients turn up for treatment of cosmetic reasons. In our Indian scenario it is the complications not the cosmetic reasons bring the patient to the doctor. That is the reason, why, though common, varicose veins remain as an ice berg phenomenon**.**

AIMS AND OBJECTIVES

1. To study the management of lower limb varicose veins and its out come.
2. To study the relation between site of incompetence and complications of lower limb varicose veins.
3. To study the pattern of complications of lower limb varicose veins.

METHODOLOGY

All the patients admitted with lower limb varicose veins in surgery wards at NRI GENERAL HOSPITAL, CHINNAKAKNI from OCTOBER 2018 to OCTOBER 2019 were included in the study. Total number of patients in this study were 42.

INCLUSION CRITERIA:

1. All patients with primary varicose veins of the lower limb due to superficial and perforator venous incompetence.
2. Complications :
   1.Chronic swelling
   2.Skin changes (Lipo dermato sclerosis, eczema, pigmentation)
   3.Ulceration.

EXCLUSION CRITERIA:

1. Secondary varicose veins
2. Recurrent varicose veins
3. Deep venous incompetence
4. Varicose veins other than lower limbs.

A thorough history was taken in all the patients. A detailed clinical examination was done. All the clinical tests were applied. Then all the patients were subjected to duplex USG to confirm the diagnosis. The routine investigations were done. The patients underwent treatment based on their clinical and investigational profile. The post-operative course was noted. Further the patients were fallowed up. If necessary repeat investigations (Duplex USG) was done. Final out come evaluated. All the information was taken down in the proforma, designed for the study.

RESULTS:

The youngest in the study was 19 years and the eldest was 71 years**.** Only 6 patients were female out of the 42 admitted cases. The majority of the patients sought medical help for one or the other complications. Only 22% of the patients had the complaint of prominent veins.

The study showed slight increased incidence in the left lower limb. This study revealed that the majority of the patients have involvement of long saphenons system. There was no case of isolated short saphenous system involvement.

A greater portion of the patients had combined valvular incompetence (69.56%). Isolated perforator incompetence was seen only in 4.35% of the patients.

SURGICAL PROCEDURE PERFORMED:

SFFL - Sapheno femoral flush ligation
STR - Stripping
MSFL - Multiple subfascial ligation
MSA - Multiple stab avulsion
SPL - Sapheno popliteal flush ligation
SG - Skin grafting

In this study except two patients who did not have Sapheno femoral incompetence, all other patients underwent Sapheno femoral flush ligation.

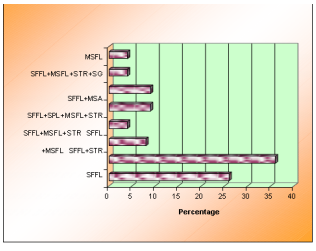


Table 1: surgical procedure performed.

COMPLICATIONS:

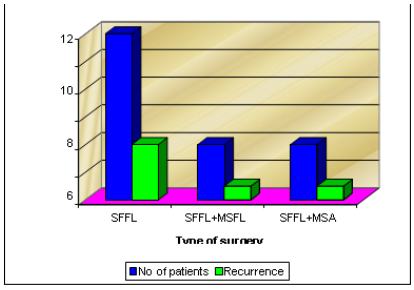
Four patients had wound infection and were treated with antibiotics and proper wound care.

Two patients had residual varicosity and patients underwent repeat surgery.

Six patients had saphenous neuritis and were treated conservatively. All these patients had undergone long stripping.
Long segment stripping – LSV stripped from Groin to ankle.
Short segment stripping – LSV stripped from Groin to Just below knee.

Six out of 12 patients who underwent long segment stripping of long saphenous vein had saphenous neuritis accounting for 50%.

In 12 cases only saphenophemoral flush ligation was done and recurrence was noted in 4 patients in 12 months fallow up. In 4 patients saphenofemoral flush ligation with multiple subfascial ligation was done and recurrence was noted in 1 patient. In 4 patients multiple stab avulsion was carried with saphenofemoral flush ligation and recurrence was noted in 1 patient.



The cause of recurrence was saphenofemoral reconnection in 3 cases and incompetent perforator in 3 cases.

DISCUSSION

In the presents study a total number of 42 patients (46limbs) with primary varicose veins were admitted, investigated, operated and fallowed up. The results were analyzed. In this study the age range is from 19 yrs to 71 yrs. Malhotra et al (1972) in their study comprising 677 patients from both North and South India had an age range of 18-65 years. In the West Wright et al in their study of 1338 patients in England had an age range of 20-75 years.

In this series male to female ratio was found to be 6:1. Malhotra et al (India) did not record a single case of female patients. Burkitt et al(India) showed a ratio of 1.5:1. compared to these observations Mekky et al (Egypt& England 1969) did not record even a single case of Male having varicose veins. Leipnitz et al in Germany recorded a ratio of 1:2. Widmer39 in Switzerland recorded a ratio of 1:1.

The decreased occurrence of disease in females at our set up may be due to the fact that our middle class and lower-class women are not much worried about the cosmetic appearance. Secondly the women may be resistant to complications of varicose veins probably due to hormonal influence or less average height compared to male which has a direct impact on venous hypertension or less violent muscular activity.

An increased incidence of varicosity was noted on left side. The cause for the increased incidence on left side is not mentioned in any of the standard text books. But could be attributed to the longer course traversed by the left ileac veins.

In present study right and left limb involvement is 47.82% and 52.17% respectively, which compares favorably with study conducted by A.H.M. Dur, A.J.C. Mackaay et al, which was right limb 48.55% and left limb 51.45%. Both limbs involvement in this study were seen in 4 patients.

In our study over all 74% of patients had perforator incompetence which shows that majority of the cases presenting to the hospital for treatment are advanced cases of hemodynamic disturbances of the limb and it is comparable with study conducted by Labropoulos N et al where 68% had perforator incompetence.

In this series 38 patients had skin changes. 24 (63.15%) had combined superficial and perforator incompetence 12 (31.57%) had isolated superficial incompetence and 2 (5.26%) had isolated perforator incompetence.

In a similar study by T.A. Lees & D. Lambert (60 patients with skin changes) 39 (65%) had combined superficial and perforator incom petence. 17(28.33%) had isolated superficial incompetence and 2 (3.33%) had isolated perforator incompetence.

In this study 20 cases with SF incompetence were not stripped and recurrences were noted in 6 cases where as 24 cases with stripping showed no recurrence.

In a similar study by Sarin et al the group in which no stripping of LSV was done these was recurrence of 45% and in-group with stripping done 18% recurrence was seen.

The difference in outcome of patients with stripping in our series (0%) and Sarin et al(18%) may be due to very short fallow up period of 12 months in my study compared to 36 months in Sarin et al study.

CONCLUSIONS

The study revealed that the disease is prevalent in the young adult and middle-aged individuals who are the earning members of the society.

The majority of the patients were male. The reasons for the less number of female in the study is not known. Probably our middle class and lower-class women are not much worried about the cosmetic appearance and secondly women may be resistant to the complications of varicose veins by virtue of their hormonal mileau or less average height compared to male or less violent muscular activity.

Most of the patient presented to the hospital for one or the other complications not for the cosmetic purpose.

The study revealed slightly increased incidence of varicosity in the left lower limb as compared to right lower limb. The cause for the same is not known but could be attributed to the longer course traversed by the left iliac veins.

Long saphenous vein was involved in the majority of the case compared to short saphenous vein and there was no case of isolated short saphenous vein involvement. A greater portion of the patients had combined valvular incompetence with advanced hemodynamic disturbances at presentation.

Sapheno femoral flush ligation with stripping appeared to be the best method of surgical management for in competence in the long saphenous vein territory. In the presence of short saphenous vein incompetence sepheno popliteal flush ligation with stripping needs to be added. Avoidance of stripping result in recurrence in significant number of patients (30%)

Complication of stripping like saphenous neuritis may be avoided by having short segment stripping done, without affecting the overall outcome of the surgery.

SUMMARY:

The study was conducted at Department of Surgery, NRI GENERAL HOSPITAL, Chinnakakani, from October 2018 to October 2019 to evaluate the clinical presentation and management of lower limb varicose veins.

Forty-two cases (Forty six limbs) of varicose veins of lower limb were presented and analyzed in this study.

The study revealed that the disease is prevalent in the active (younger) phase of life. The majority of the patients were males in the study. The reason for the less number of females in the study is not known.

The study revealed increased incidence of varicosity in the left lower limb as compared to the right lower limb. Most of the patients presented to the hospital for one of the other complications, not for the cosmetic purpose. Majority of the patients had long saphenous vein involvement. Four patients had both long saphenous and sort saphenous vein involvement. Majority of the patients had combined valvular incompetence. The patients with advanced disease had both saphenofemral and perforator incompetence. All the patients with venous ulcer had perforator incompetence. Long segment stripping was associated with increased incidence of saphenous neuritis (50%) while no case of saphenous neuritis occurred in short segment stripping group. Stripping of path of incompetence that is, long saphenous vein trunk was associated with no recurrence in 12 months follow-up period, while retaining the path of incompetence there was recurrence in 6 cases (30%) in the same period of follow- up.

REFERENCES:

1. P. A. Paraskeva, N Cheshire, G. Stand by and A.W. Darzi. "Endoscopic Sub fascial division of incompetent perforating calf veins", Br. J. Surg, 1996; 83: 1105-1106.
2. Philip D. Coleridge smith. Modern approaches to venous disease, "Recent advances in surgery", 23, Edited by C.D. Johnson and I. Taylor, Pg. 125-139.
3. Malhotra S.L. "An Epidemiological study of varicose veins in Indian rail road workers from the South and North of India, with special reference to the causation and prevention of varicose veins", Int. J. Epidemiol, 1972, 1: 177-83.
3. Wright et al. "The prevalence of venous disease in a west London population. In: Davy A, stemmer R, Eds. Phlebology' 89. Paris : John libbey Eurotext, 1989: 176-8.
4. Burkitt et al. "Varicose veins in India," Lancet 1975; ii:765-769.
5. Mekky et al. "Varicose veins in women cotton workers: An epidemiological study in England and Egypt". BMJ 1969; ii : 591-5.
6. Leipnitz et al. "Prevalence of venous disease in the population: first results from a prospective study carried out in greater Aachen", In : Davy A, Stemmer R, Eds, Phlebology'89. Paris : John libbey Eurotext, 1989: 169-71.
7. Widmer LK. "Peripheral venous disorders", Basal III, Bern : Hans Huber, 1978.
8. A.H.M. Dur, A.J.C Mackay et al. "Duplex assessment of clinically diagnosed chronic venous insufficiency", Br. J. surg. Vol 79. June 1992, S, 155-161.
9. Labropoulos N. et al. "Where does venous reflux start ?" J Vasc surg 26 (s), 738-42, 1997.
10. T A Leese and Diltiazem Lambert. "Patterns of venous reflux in limbs with skin changes associated with chronic venous insufficiency," Br. J. Surg. June 1993; 80: 725-28.
11. S. Sarin, J H Scurr and P.D. Coleridge smith. "Assessment of stripping the long saphenous vein in the treatment of primary varicose veins, Br. J. Surg. 1992 Sept., 79; 889-90.