VARICOSE VEINS: A 2-YEAR STUDY IN MILITARY HOSPITAL, CHHAUNI

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ABSTRACT

In a prospective study of the 176 cases of Varicose Veins in the Dept. of Surgery, at Shree Birendra Hospital from Baisakh 2055 to Baisakh 2057, the diagnosis and management of Varicose Veins have been outlined. The age groups were from 20 to 70 years, sex being 128 males and 48 females and site of Varicosity being Left leg 70, Right leg 89 , Both legs 17. The conclusion was SF ligation with Linton's operation as the optimal mode of surgery in cases with SF and leg perforators incompetence. The recommendations made are inclusion of calf muscles exercise in routine PT of the serving soldiers and change of job for a high risk patient and post operative cases.

Key Words: Varicose Veins, Soldiers

Background

Shree Birendra Hospital, though an army hospital, has been providing medical services, not only to the serving soldiers, but also to the ex-servicemen, dependents, Nepal police and students of Army school & college. As the soldiers are expected to maintain peak physical conditions at all times, they have a schedule of daily exercises. Keeping this in perspective, we are of the opinion that the rigorous work being performed by the soldiers may be the main etiological factor for the increasing frequency of varicose veins seen in this group of people.

GOAL

To search for an ideal mode of treatment for varicose veins in soldiers of RNA.

AREA OF STUDY

Our areas of study were:

- Soldiers
- Ex servicemen and dependents
- Referred cases from the police hospital
- Officials of the Defence Ministry

REFERRAL CENTERS

The study group comprised of 176 patients of varicose veins referred in from different centers as shown in the table 1.1:

Table 1.1 Distribution of the cases according to referral center.

Field Ambulances	71 cases
GOPD	30 cases
Police hospital	37 cases
UN mission	33 cases
Sp. OPD	5 cases

GROUPING

The study group was divided into three main sub-groups.

- Age
- Sex
- Site of varicosity.

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THE STUDY

Total no. of cases in 2 years duration: 176.

Sex Distribution:

Male: 128
Female: 48

Site of varicosity:

Lt. leg: 70 cases
Right leg: 89cases
Both legs: 17 cases

Age distribution:

20 - 30 64 cases
31 - 40 79 cases
41 - 50 30 cases
51 - 60 8 cases
61 - 70 5 cases

CRITERIA FOR INCLUSION IN THIS STUDY:

The basic criteria were:

- Age between 20 to 70 years
- Must have underwent surgical treatment in MH

(Those cases that underwent surgery outside were not included.)

PRESENTATION

Table 1.2 Primary mode of presentation in varicosity is with pain.

Mode of presentation	No. Of pt	%
Varicosity only	176	100
Varicosity with eczema	17	10
Varicosity with ulcers	3	2
Varicosity with haemorrhage	1	
Varicosity with phlebitis	1	
Varicosity with lipodermatosclerosis	0	
Varicosity with calcification of vein	0	
Varicosity with periostitis	0	
Varicosity with EQUINUS deformity	0	

Almost 90% of cases presented without complication. This is due to the meticulous screening in fi level and early surgical management in the hospital.

SCREENING

RNA has a system that all soldiers should undergo thorough medical checkup during:

- Recruitment
- Annual screening
- Periodic screening (screening of soldier during their promotions and field postings.)
- Fitness checkup for special missions including UN mission.

MANAGEMENT PROTOCOL:

The following steps of management were followed for every patient of varicose veins presenting to SOPD:

- Step I _ **Detailed history**
  Special attention was paid to the mode of work the patient had been performing and to the past medical history to rule out any history suggestive of DVT (deep Vein thrombosis)
- StepII _ **Clinical tests**
  The aim of this step was to locate the site of the incompetent valves. Only the following tests were performed:
  1. Brodie-Trendlenberg's test
  2. Perthes' test
  3. Tourniquet test
  4. Schwartz test
- StepIII _ **Base line investigations**
  1.Hb %, Tc, Dc, ESR, Bleeding profiles
  2.FBS
  3.CXR
  4.ECG if age>40years
- StepIV _ **USG abdomen and pelvis**
  To rule out any intra abdominal pathology obstructing the venous drainage and causing the venous hypertension.
- StepV _ **Admission in surgical ward for surgical management**
  (Cases requiring venogram and other specialized investigations have not been included in this study)

OPERATIVE MANAGEMENT:

Prior to any operative procedure the patency of deep venous system and valvular competence were determined. During the last two years, the following modalities of operations were performed, as shown in table 1.3.

Table 1.3 Type of Operation performed. Total N. = 176

Type of Operation	No. Of Cases	Recurrence	%
Multiple ligation	30	13	43
S.F ligation	20	7	35
S.F ligation with stripping	25	6	24
S.F ligation with lintons	91	4	4.3
S.F with cosmetic phelbectomy	10	3	30

(All operations were performed under SA, except multiple ligations- under LA.)

Postoperative complications:

The common complications faced are shown in table 1.4:

Table 1.4

Types of operation	Total cases	Wound infection	DVT	Seroma
Multiple ligation	30	7	1	0
SF ligation only	20	2	0	0
SF ligation with lintons	91	8	2	2
SF ligation with stripping	25	3	1	1
Cosmetic phlebectomy	10	1	0	0

OBSERVATION

1. The Male: Female ratio in this study is 3:1. This is found to be reversed, contrary to other studies, as this study group consisted mainly of serving soldiers.
2. The higher male predominance may be due to prolonged standing in the part of the serving soldiers.

DISCUSSION

Varicose Veins are enlarged, twisted veins with nonfunctioning valves. In normal veins, valves in the vein keep blood moving forward towards the heart. With varicose veins, the valves do not function properly, allowing blood to remain in the vein. Pooling of blood in the vein causes it to enlarge. This usually occurs in the veins of the legs, although it may occur elsewhere. Varicose veins are common, affecting 1 out of 10 people, mostly women between the ages of 30 and 60. Causes include congenitally defective valves, thrombophlebitis, and pregnancy, prolonged standing or sitting, poor posture, and increased pressure within the abdomen will both increase susceptibility and aggravate the condition. Primary varicose veins occur because of congenitally defective valves or without a known cause. Secondary varicose veins occur because of another condition, such as occurs when a pregnant woman develops varicose veins (because the enlarged uterus puts pressure on the veins that drain the legs). The varicose veins can be prevented by avoiding prolonged standing or sitting. If personal or family history indicates risk of developing varicose veins. Varicose veins present as a pain in the legs: fullness, heaviness, aching; muscle cramps of the legs; visible, enlarged veins; swelling of ankles, skin at the ankle discolored brown; skin ulcers on the legs or above the ankle. The diagnosis is based primarily on the appearance of the veins. Frequently, a duplex Doppler/ultrasound exam of extremity is used to see blood flow and characterize the vessels.

Rarely, an MRI or angiography of the legs may be performed to rule out other disorders Treatment may not be required unless the condition is painful or is causing skin ulcers. Treatment may be requested to improve the appearance. Surgery such as vein stripping and ligation (removal of the varicose vein) or sclerotherapy of veins (injecting with a solution that causes scarring, which closes the vein) may be recommended. Self-care may reduce symptoms. This includes raising the legs whenever possible to increase blood drainage, avoiding prolonged standing or sitting, and regular exercise to increase circulation. "Ace" elastic bandages or an elastic stocking may increase blood flow and relieve discomfort. As for the prognosis, varicose veins tend to worsen over time. Discomfort and progression may be lessened with self-care. Complications may be phlebitis (chronic inflammation of the vein), deep vein thrombosis, and formation of leg ulcers

CONCLUSION

SF Ligation with Linton's Operation is the optimal mode of surgery in cases of varicose veins with SF and leg perforators incompetence.

RECOMMENDATIONS

1. Inclusion of calf muscle exercises in routine PT of serving soldiers may help to reduce the frequency of varicose veins.
2. Change of job placement for a high-risk patient and postoperative case may be beneficial.

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