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MANAGEMENT OF POST-OPERATIVE COMPLICATIONS OF VARICOSE VEIN SURGERY

Surgery

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ABSTRACT

Introduction: Varicose veins are defined as tortuous dilated veins that mainly occur in lower limbs. Objectives of surgery for varicose veins is mainly to relieve symptoms, improve the cosmetic appearance, and alleviate complication and to restore normal venous physiology.
Aim: the aim of our study is to study the management of post-operative complication of varicose vein surgery.
Method: In our study different age groups were studied most common age group was 31-40. In our study out of 40 cases 33 were male and 7 were female. In our study 23(57.5%) out of 40 patients are in occupation which compelled them to stand more than 8 hrs a day. In our study left limb (45%) was affected more common. The involvement of long saphenous system (85%) is more common. than the short saphenous system (12.5%). In our study commonest symptoms were dilated veins (100%) and pain (60%). Clinical examination has a high predictive accuracy most common post-operative complication is bruising (17.5%). Wound infection (10%) is second common then tingling and numbness (7.5%). Varicose vein of lower limb is a common occurrence affecting mostly males who stands for more than 8 hours a day present with dilatation and tortuosity of veins and pain. Definite surgical management is SFJ ligation with GSV stripping with or without ligation of incompetent perforators having acceptable post-operative complications.

KEYWORDS

complications, varicose veins, surgery, hemorrhage

INTRODUCTION

Varicose veins are common. The prevalence has been variously reported from as little as 2% to over 20% in population studies[1]. This enormous variation results from the different populations studied, different definitions applied and the different assessment or examination techniques used. Western studies have shown that 20% population suffers from varicose vein and 1% has skin changes preceding to venous ulceration.[1]

It's in the developed countries where attire reveals more than it conceals; patients turn up for treatment of cosmetic reasons. In our Indian scenario it's 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[2].

A reasonable approach for treating an individual with varicose veins should consider the likely benefits of a particular intervention in three areas:

1. Cosmetic benefit
2. Symptomatic benefit
3. Prevention of progression of venous insufficiency and venous ulceration.

There are various treatment options available for different levels of affection of the limb and underlying pathology

- Reassurance with or without analgesia
- Leg elevation
- Compression therapy
- Sclerotherapy
- Surgery

There are various post-operative complications of varicose vein surgery. The following is the list of the complications:

1. Bruising: it occurs postoperatively along the line of stripped vein in subcutaneous plane.
2. Numbness and tingling sensations: most of the patients have complaints of numbness and tingling sensation along and nearby to stripped venous track.
3. Injuries to accompanying nerves, arteries and veins; intraoperatively there are chances of injury during dissection, ligation to nearby passing important anatomical structures like femoral artery, saphenous and sural nerve
4. Deep vein thrombosis: during dissection intraoperatively there are chances of injury to deep venous system and post operatively it manifest as thrombosis formation.
5. Recurrence: its delayed post-operative complication. It may be failure of previous surgery or it may be new occurrence.
6. Hematoma: it occur at dissection site and ligation site.
7. Wound infection
8. Lymphedema, lymphatoma and lymphatic fistula: due to subcutaneous lymphatics injury lymphedema occurs. If lymphatic vessel injury occur then lymphatoma formation occur.[2,3.]

MATERIALS AND METHODS

The present study was conducted at B. J. Medical College & Civil Hospital, Ahmedabad, from January 2012 to December 2015. During this period 40 cases of varicose veins who underwent surgery, were studied. Selection of cases were random. The study was performed as per the proforma drafted for study of varicose veins. The clinical finding with coexisting medical illness was recorded in detail. The routine investigations were done and special investigations were performed. The pre-operative treatment, operative findings and post-operative outcome are documented. The details of cases of varicose veins were drawn as a master chart with record of relevant and positive findings.

Inclusion Criteria

1. Patients with unilateral and bilateral varicose veins in lower limbs.
2. Both male and female patients are included.

Exclusion Criteria

1. Lower limb varicose veins with deep vein thrombosis.
2. Lower limb varicose veins with pregnancy.
3. Lower limb varicose veins with abdominal mass.

The following procedures were performed on the patients as per the pathology of Varicose Veins.

1) Saphenofemoral Junction (SFJ) ligation and Great saphenous vein (GSV) stripping
2) SFJ ligation and GSV stripping with ligation of incompetent perforators.
3) SPJ ligation
4) Ligation of incompetent perforators (sole procedure)

Immediately postoperatively attention was paid to note the development of any early complications Like bruising, numbness and tingling sensation and local site hematoma. Patients who developed complications were managed as per requirement.

In our study, the patients who developed bruising were reassured and were advised to continue elastocrepe bandage application. Development of tingling and numbness in foot and leg was transient and loosening of the elastocrepe was enough for the alleviation. Those

patients who developed hematoma at groin site were managed with aspiration under sterile precautions or open drainage where deemed appropriate. Any patient who developed any complication was discharged after the management of the complication and was called for follow up. Usual time for discharge from hospital was 2nd post-operative day. Suture removal was done on 10th post-operative day and with a further advice to come to follow up once every 15days for one month and further once in a month till 6 months post operatively. On follow up all the patients were examined for occurrence of any late complication like deep vein thrombosis, recurrence or lymphedema, lymphatoma and lymphatic fistula.

RESULTS

In our study different age groups were studied most common age group was 31-40. In our study out of 40 cases 33 were male and 7 were female. A definite relationship existed between the occupation and the occurrence of varicose veins. Most of the patients were involved in the occupation which required them to stand for more than 8 hours a day. In our study 23(57.5%) out of 40 patients were in occupation which compelled them to stand for more than 8 hrs a day. In our study left limb (45%) was affected more common. The involvement of long saphenous system (85%) is more common than the short saphenous system (12.5%). In our study commonest symptoms were dilated veins (100%) and pain (60%). In our study all patients were investigated with color Doppler. Operative surgical procedures: SFJ flush ligation with GSV stripping was done in 22(55%) patients, SFJ flush ligation with GSV stripping and incompetent perforators ligation was done in 11(27.5%) patients. In 33(82.5%) patients SFJ ligation with GSV stripping was done. SPJ ligation alone was done in 5(12.5%) patients and incompetent perforators' ligation alone was done in 2 (5%) patients.

In our study most common post-operative complication was bruising (17.5%). Wound infection (10%) is second common then tingling and numbness (7.5%). 2(5%) cases of hematoma was noted.(groin site incision). In our study we had noted 4 cases of wound infection at groin site incision and category 1 of SSI. Patients who developed bruising were reassured and were advised to continue foot end elevation and elastorepe bandage application post operatively. Patients with tingling and numbness were reassured. Hematoma was managed by opening of wound and evacuation of hematoma. Wound infection was managed by injectable antibiotics and daily dressing. The mortality rate is nil.

DISCUSSION

In present study the age range is from 19yrs to 63 yrs. Malhotra et al[4] 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 al27 in their study of 1338 patients in England had an age range of 20-75 years In present study male to female ratio was found to be 4.5:1. Widmer et al[5] in Switzerland recorded a ration of 1:1. Callam et al[6] in England recorded a ratio of 1:2.

In present study, long saphenous vein was involved in 34 cases (85%), the short saphenous vein in 5 patients. (12.5%) and incompetent perforators in 20 cases (50%). Delbe and Mocquet in their study had found varicosity of long saphenous vein in 98% and only 2% in short saphenous vein. Incompetent perforator was noted in 41 (82%) cases. In clinical study and management of varicose vein by K Vani et al.37 Long saphenous vein 70%. Short saphenous vein 12% and incompetent perforators 10%. In our study, we encountered 7 cases of bruising post operatively which is commonest postoperative complication in our study. 4 cases of wound infection encountered as second common post-operative complication. Tingling and numbness in 3 cases, hematoma in 2 cases and in 1 case post-operative patient had pain. Bruising was managed by reassurance elastocrepe bandage application, foot end elevation at bed time. Wound infection was treated by injectable antibiotics and daily dressing.

CONCLUSIONS

Varicose vein of lower limb is a common occurrence affecting mostly males who stands for more than 8 hours a day present with dilatation and tortuosity of veins and pain. Definite surgical management is SFJ ligation with GSV stripping with or without incompetent perforators' ligation having acceptable post-operative complications.

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