

Management of Varicose Veins

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Abstract

A retrospective study of patients with varicose veins which is a very common problem is being presented. 200 patients of varicose veins who were treated at Govt. Medical college Srinagar between 2013-2015 were reviewed and their treatment strategies were analyzed with a regular follow up. Out of the 200 patients who were offered treatment only 25 varying degrees of recurrence were seen which were adequately dealt. Good results with foam sclerotherapy and radio frequency ablation were analyzed. varicose vein require multimodality treatment. Treatment options are shifting from invasive to less invasive modalities (sclerotherapy and endovenous ablations).

Key Words

Varicose, Sclerotherapy, Duplex Imaging, Radio Frequency Ablation

Introduction

A vein is said to be varicose when it is elongated, dilated and torturous. The term commonly refers to the veins on the leg, although varicose veins can occur elsewhere also. Experience with management of 200 cases at Govt. medical College Srinagar has been evaluated. Management of patients have seen a change in trend regarding evaluation and subsequent treatment. A change from clinical examination and venography to more frequent color duplex examination has shown more rate of pickup of valvular incompetence, better localization of perforator incompetence and lesser chances of recurrence. Treatment options are showing a trend from more invasive procedures to lesser invasive procedures such as US guided foam sclerotherapy, US guided ligation of perforators and varicosities, endoscopic surgical techniques, Radiofrequency ablation and laser treatment.

Material and Methods

A retrospective analysis of 200 cases of varicose veins of lower limbs at Govt. Medical College Srinagar over a period of 2 years (2013-2015) has been done. Initially varicosities were evaluated with clinical tests and in few cases more invasive venography was done. Now in all cases better evaluation was done using colour Doppler and Duplex imaging techniques. 10 cases with telangectasias, reticular veins or very superficial

varicosities were managed conservatively without any surgical intervention. Rest of patients were subjected to various treatment options like Trendlenberg's operation, Trendlenberg's operation with stripping. Subfascial ligation (conventional and US localized), sclerotherapy, US guided foam sclerotherapy and Radiofrequency ablation. All patients were advised leg elevation, crepe bandage support, elastic stocking and regular follow ups in CTVS opd.

Results

There were a total of 200 cases in the present study. In our series, there were 160 male and 40 female patients. Age range was 16 years to 80 years with maximum presentation between second to fourth decade (150 patients). The commonest presentation was some degree of aching sensation, pain and heaviness in limbs, presence of dilated veins, dermatitis and pigmentation, venous ulcer and bleeding from superficial varicosities because of minor trauma. In all 200 patients after thorough physical examination Duplex Imaging which involves the use of B-mode ultrasound and a colour Doppler probe was done to accurately decide the line of management. In 35 patients, where on initial clinical evaluation no valvular incompetence was diagnosed. Duplex imaging picked the incompetence. 10 patients in the present study

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had early disease and were managed conservatively with calcium dobesalate medication, limb elevation, crepe bandage support and elastic stockings.

Initially, surgery was done using more wider incisions and now with more accurate localization of varicosities, limited incisions were given. Trendelenberg's operation was done in a total of 80 cases. In 60 out of these 80 cases varying degrees of venous stripping was also done. In only 45 out of these 200 cases subfascial ligation of perforators was done. With the start of cardiovascularthoracic unit in Govt. Medical College Srinagar and introduction of technique of foam sclerotherapy by cardiovascularthoracic surgeon, foam sclerotherapy was used in a total of 150 cases [50 alone and 125 combined with other procedures]. More recently Radiofrequency ablation under Doppler scanning was done in 80 cases. Out of a total of 200 patients 10 patients had some degree of arterial insufficiency which required co-treatment. Recurrence was seen in 30 patients -20 managed with foam sclerotherapy, 3 patients required Trendelenberg's operation, 5 subfascial ligation and 2 again required radiofrequency ablation therapy. Postoperative complications were recurrence (30 cases), leg edema, ulcers (5 cases) and some degrees of skin necrosis. Postoperatively patients were advised limb elevation, avoid prolonged standing, crepe bandage and elastic stockings. With new lines of treatment like foam sclerotherapy and radiofrequency ablation less morbidity, less hospital stay and less postoperative complications have been observed.

Discussion

Varicose vein is a very common problem. Most suffer with aching, discomfort, pruritis and muscle cramps (1,2,3,4) while complications include edema, eczema, lipodermatosclerosis, ulceration, phlebitis and bleeding (5).

Although no specific etiology is noted, in most cases some form of valvular disruption is presumed to be caused by a loss of elasticity in the vein wall with failure of leaflets to fit together. Venous incompetence is best diagnosed by duplex ultrasound scanning. Use of hand held Doppler machine provides a quick screening test for selecting those who need duplex scanning (8,9,10). In some early cases and those who are not fit for any other line of treatment conservative management can be tried (6, 7). Sclerotherapy is clinically and cost effective particularly for smaller varicose vein, bunch of varicosities, in

Fig.1 Trendlenberg's Operation



Fig.2 Foam Sclerotherapy



recurrent cases particularly in those cases that are not subject to upstream incompetence and those below the knee. In presence of sapheno femoral reflux results are not long lasting. Foam sclerotherapy and subfascial ligation have short term advantages over conventional surgeries (2,11, 12,13) The majority of varicose vein patients have an incompetent saphanofemoral junction and long saphenous vein reflux. In surgery proper assessment of

Fig. 3 Radiofrequency Ablation



saphenofemoral junction competence is required. If surgery is done without Trendelenberg's operation and if saphenofemoral junction is competent-100 %cure and 14% residual varices. But if incompetent SFJ- 20.9% cure rate and 82%recurrences if Trendonberg's opetation is not done. Varicose vein surgery is both clinically and cost effective.(14) Never the less varicose veins may gradually reoccur by a process of neurovascularization (regrowth and enlargement of veins) even after thorough surgery or may develop elsewhere in legs. Stripping reduces risk of long term recurrence. Stripping is now replaced by radiofrequency and laser ablations. This avoids groin incision and less bruising and quicker recovery. Benefits have been documented in small randomized studies for radiofrequency ablations(14-19).

Conclusion

Varicose vein is a very common problem. Multimodality treatment options are available. Trend is shifting from surgical procedures to non surgical techniques. Ultrasound guided foam sclerotherapy and endovenous (radiofrequency) ablation is giving very good short term results.

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