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A Study of the Surgical Management of Varicose Veins

KEYWORDS: Varicose veins, Perforators, Stripping, SEPS.

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ABSTRACT *The study is aimed at the effectiveness of various surgical procedures and assess the demographic profile of patients, risk factors, spectrum of clinical presentation, results of surgery, postoperative complications and recurrence.This study was done during the period March 2014 to February 2015 at Osmania General Hospital, Hyderabad.*

INTRODUCTION:
Varicose veins comprise a significant part of the surgical workload in India, the incidence being about 5%. A multitude of procedures are at the disposal of the surgeon from conventional open surgery to endovascular techniques like radiofrequency ablation, laser therapy and foam sclerotherapy. Disease specific quality of life was worse after foam sclerotherapy. Though medium term(5 years) results were similar in groups treated with endogenous laser ablation and surgery cost considerations favor surgery as prime modality of treatment.

Objectives:
The present study is a descriptional study with a view to study the effectiveness of various surgical procedures and assess the demographic profile of patients, risk factors, spectrum of clinical presentation, results of surgery, postoperative complications and recurrence if any.

Methods:
A total of 30 patients were included in the study. All patients were subjected to duplex scanning preoperatively. Presence of incompetent perforators were marked prior to procedure. All patients had varicosities of the great saphenous vein. None of them had deep vein thrombosis. Saphenofemoral incompetence was treated with Trendelenburg operation and stripping of the great saphenous vein. Incompetent perforators were dealt by open Cockett and Dodd method or SEPS.

Observations:
All patients were regularly followed up on a bi- weekly basis for 3 months. Post operatively all patients were asked to wear grade II compression stockings for a minimum period of 3 months. Male patients(n=24) predominated in our study. Right side was more commonly involved.(n=14). Only one patient had bilateral varicosities. No secondary causes were identified in any patient of the study group. Perforator incompetence was present in all 30 patients, 18 patients had reflux of the great saphenous vein in addition. Pain was the most common presentation(n=12),followed by heaviness(n=7),ulceration and pruritus in (n=4) each and skin pigmentation in the remaining(n=3).The average ulcer healing time was 4.5 weeks.

Results:
Flush ligation with stripping of great saphenous vein was done in 18 patients. SEPS for perforator incompetence was performed in 7 patients and Cockett and Dodd method performed in 5 patients with perforator incompetence. The ulcer healing times ranged from 2 weeks to 7 weeks in the 4 patients who presented with active ulceration. Complication rate was 16.67%(n=5) with wound infection being the commonest.(n=4).One patient had residual perforator incompetence. This was due to improper marking of perforators as the residual perforator was recognized in the immediate postop period. Patients who underwent stripping were in hospital for 10 days, Cockett and Dodd perforator ligation technique requiring 6 days of hospitalization and SEPS procedure requiring 3 days of hospital care.

Discussion:
Varicose veins commonly seen after 18 years of age with incidence increasing with increasing age. The average age of patients in our study was 36 years. Though no specific gene or molecular marker has been identified thus far familial occurrence of varicosities is well documented in literature. In our study familial occurrence was observed in one patient. Erect posture is a known risk factor for lower limb varicosities as the pressure of the column of blood is transmitted through the femoral vein to the saphenofemoral junction and the valve guarding it. Violent muscular effort causes increase of venous pressure of the veins of the lower limb to levels which cause intolerable strain on the valves especially those guarding perforators. When this occurs for a prolonged duration. These valves become incompetent. This leads to high pressure retrograde flow into superficial system and resultant varicosities. All patients in our study were involved in occupations requiring long hours of standing or violent muscular effort.

Conclusion:
Surgery is better and cost-effective treatment for varicosities. Proper preoperative assessment and marking of perforators decreases the incidence of residual perforator incompetence. Rate of ulcer healing was dependent on local wound care and compression provided than on the timing of surgery. Flush ligation with stripping is the optimum procedure for treatment of varicosities with GSV reflux. Cockett and Dodd and SEPS were equally effective in the treatment of incompetent perforators. SEPS resulted in fewer days of hospital stay.

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