

Clinical Profile of Patients with Varicose Vein Attending Tertiary Care Hospital

Sapna Purushotham¹, Ravikar Jayaraj¹

¹Associate Professor, Department of Surgery, East Point College of Medical Sciences, Bangalore, Karnataka.

Abstract

Background: The exact etiology of Varicose Veins is not clearly known. The fact that the human race gets Varicose Veins at all is probably due to our evolutionary adoption of the erect posture. The superficial veins of the legs being between three and four feet below the heart, and unsupported except by connective tissue are in poor position to withstand continuous venous hypertension and so they become enlarged and tortuous i.e., varicose. **Subjects and Methods:** Patient who satisfy inclusion and exclusion criteria are subjected to clinical examination, Duplex ultrasound and Basic pre-operative investigations for surgery. History and examinations were completed as mentioned in the proforma. The patient was examined in standing position with good illumination, exposing both the lower limbs completely. **Results:** Study subjects included both males and females, Males comprised of 45% whereas females 55%. Majority of patients were unskilled workers (68.3%). Housewives formed 16.7%. **Conclusion:** The most common complaint was pain, pigmentation and eczema.

Keywords: Varicose Vein, Pigmentation and Eczema.

Corresponding Author: Dr. Ravikar Jayaraj, Associate Professor, Department of Surgery, East Point College of Medical Sciences, Bangalore, Karnataka.

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Introduction

The Long Saphenous Vein is the extension of medial venous arch in front and lateral to the medial malleolus running up anteromedial surface of tibia and posteromedial to knee joint ascending to the foramen ovale and piercing cribriform fascia 3 to 3.5 cms below and lateral to pubic tubercle terminating into the femoral vein. Except in the middle third where it is subcuticular it is resting over the deep fascia.^[1] Saphenous nerve is in close relation to the vein in the distal 2/3rd of the leg where it is likely to be injured. Lymphatic are its close accompaniments throughout the dorsum and the anteromedial surface of the whole limb terminating into superficial group of Lymph nodes. Apart from its connection with dorsal arch there are communicating veins between short and long Saphenous Vein in the distal 1/3 of leg.^[2] The valves of the leg veins are profuse and of great importance in the pump mechanism, whereby in the upright position, blood is returned to the heart against gravity. In the venous sinuses of the soleus muscle there are no valves, but in all the muscular veins draining both the soleus and gastrocnemius muscles, valves are numerous. The posterior tibial and peroneal veins and anterior tibial veins are closely valved, the valves being situated every inch or so.^[3] In addition all the perforating vein in the lower part of the calf and all veins connecting the deep with the superficial veins in all parts of the lower limb are valved so that

normally blood can only pass from the superficial to the deep veins and reflux backwards is prevented.

The arrangement of valves in the large deep venous trunks, the popliteal, femoral, common femoral and iliac veins, is variable, but knowledge of this is important in considering the aetiology of both superficial varicose veins, and deep venous incompetence.

Cockett and Dodd, studied a series of cases, dissecting venous system of the lower limbs from inguinal ligament or popliteal fossas, for the purpose of mapping out valves.

The valves of the long and short saphenous vein are important in the prevention of reflux and of varicose dilatation of the tributaries of these trunks. A study of the lumina of varicose saphenous veins removed at operation has shown there this valves can be divided into two types -Major and ordinary.^[4]

Major valves consist of strong white cusps with firm thickened, attachments to the vein wall with obvious sinuses above and are usually at the end of the venous trunks. They are occasionally seen, one in the middle of the long saphenous vein below the point of entry of the posterior arch and anterior veins of the leg i.e., at the level of knee.

Ordinary valves are delicate structures. Their cusps are almost transparent. There is a little or no change in the view all either in consistency or size of lumen where they are attached. They are not easily seen, but when a trickle of water is run in them centrifugally, the cusps float outwards

and they become visible. There are one or occasionally two major valves in the terminal 2-3 cms. And there after 10 to 20 ordinary valves upto the ankle. Gray's Anatomy (1954) remarks that there are more in the leg than in the thigh.^[5]

The short saphenous vein is rather more than half the length of the long saphenous vein, but it is more closely valved. It has a major valve at its termination and has 6-12 ordinary valves in its trunk to ankle. The more peripheral the vessel is the more frequently it is valved. Major valves consist of strong white cusps with firm thickened, attachments to the vein wall with obvious sinuses above and are usually at the end of the venous trunks. They are occasionally seen, one in the middle of the long saphenous vein below the point of entry of the posterior arch and anterior veins of the leg i.e., at the level of knee. Ordinary valves are delicate structures. Their cusps are almost transparent. There is a little or no change in the view all either in consistency or size of lumen where they are attached. They are not easily seen, but when a trickle of water is run in them centrifugally, the cusps float outwards and they become visible.

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The exact etiology of Varicose Veins is not clearly known. The fact that the human race gets Varicose Veins at all is probably due to our evolutionary adoption of the erect posture. The superficial veins of the legs being between three and four feet below the heart, and unsupported except by connective tissue are in poor position to withstand continuous venous hypertension and so they become enlarged and tortuous i.e., varicose.^[6]

Factors such as Heredity, Race, Obesity, Intercurrent disease, chest disease, age and even constipation have all been the subject of prolonged investigations and discussion.

Subjects and Methods

Each patient with a typical history of symptomatic varicosis was subjected to physical examination and preliminary investigations.

Inclusion Criteria

- Symptomatic varicosis of GSV
- Insufficiency of SFJ as determined by duplex ultrasound scanning.
- Age > 18 years
- Signed informed consent
- C₂, E_p, A_s, P_r (Clinical, Etiological, Anatomical, Pathological)
- Ipsilateral Recurrent varicose veins after stripping
- SSV insufficiency
- Previous GSV thrombophlebitis
- Malignancy, renal insufficiency, Uncontrolled Diabetes mellitus, immunosuppressive medication
- Deep vein thrombosis.

Patient who satisfy inclusion and exclusion criteria are subjected to clinical examination, Duplex ultrasound and Basic pre-operative investigations for surgery.

History and examinations were completed as mentioned in the proforma. The patient was examined in standing position with good illumination, exposing both the lower limbs completely.

Result

Table 1: Age Distribution of Patients Studied

Age group	Frequency	Percentage
26 – 30 years	7	11.67
31 – 40 years	28	46.67
41 – 50 years	23	38.33
More than 50 years	2	3.33
Total	60	100

Maximum number of patients were in the age group of 31 – 40 years (46.67%) followed by 41 – 50 years (38.33%).

Table 2: Gender Distribution of Patients Studied

Gender	Frequency	Percentage
Male	27	45
Female	33	55
Total	60	100

Study subjects included both males and females, Males comprised of 45% whereas females 55%.

Table 3: Comparison of Occupation in Two Groups of Patients Studied

Occupation	Frequency	Percentage
Unskilled	41	68.3
Service	9	15
Housewife	10	16.7
Total	60	100

Majority of patients were unskilled workers (68.3) Housewives formed 16.7%.

Table 4: Comparison of Chief Complaints in Two Groups of Patients Studied

Chief complaints	Frequency
Eczema ,edema	1
Eczema, pain,Pigmentation	9
Eczema, pigmentation	2
Eczema, ulcer	1
Pain, Eczema	11
Pain, Eczema, edema	3
Pain, edema	2
Pain, pigmentation	12
Pain, ulcer	6
Pigmentation, pruritis	6
Ulcer	2
Ulcer, pain, eczema	3
Ulcer, pigmentation	3

The most common complaint was pain, pigmentation and eczema.

Table 5: Comparison of Limb in Two Groups of Patients Studied

Limb	Frequency	Percentage
Left	25	41.6
Right	35	58.4
Total	60	100

Discussion

Gay's (1812-1885) work appears to be the first scientific investigation of these conditions. He pointed out that there may be other serious lesions affecting both arteries and veins, deep and superficial and believed that venous thrombosis played an important role.^[7]

Harvey and Lower gave the concept of leg muscle pump theory.^[8]

Sir Benjamin Brodie (1783-1862) was first to demonstrate reflux in the saphenous vein and advocated conservative treatment for all but the most severe cases. He developed a system of double bandaging and recommended elevation of the limb.^[9]

Friedrich Trendelenburgh (1841-1924) and his disciple George Perthes, advocated ligation of saphenous vein and were successful in treating the varicose ulcers.^[10]

In 1930, Linton emphasized the pathological contribution of incompetent perforating veins to venous insufficiency.

The introduction of stripper has been attributed to William Keller in 1905, Charles Mayo in 1906 and Stephen Babcock in 1907.^[11]

The kellers instrument was a flexible intraluminal wire that turned the vein inside out, May instrument was an external ring that was passed along the vein, cutting the tributaries as it went, Babcock used an intraluminal stripper with an acron shaped head that pleated the vein along its length, as do strippers in use today. The Keller operation was given up because it was ill conceived, the Mayo, because of severe hemorrhage and Babcock probably because the instrument was too short, too straight and flexible.

In 1908 Beniamino Schiassi in Bologna, first used iodine as sclerosant.

1980s saw the emergence of duplex and Doppler which revolutionized the management of vascular disease.^[12]

Numerous comparative studies were conducted. Recent trends like SEPS (Subfascial endoscopic perforator surgery), Endovenous laser ablations, Endovenous radio frequency ablation, Endovenous LSV stripping have revolutionized the patient care.

Conclusion

- Maximum number of patients were in the age group of 31 – 40 years (46.67%) followed by 41 – 50 years (38.33%)
- The most common complaint was pain, pigmentation and eczema.

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