

Clinical Image of Varicose Veins of Upper Extremity

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A 72-year-old male presented to the Department of Shalyatantra with the chief complaint of longstanding swellings in the left forearm (as shown in [Table/Fig-1]) over the last 20 years, which had been progressively increasing in size and number over the last four years. There was no family history of varicose veins. There were no records of previous surgical interventions, and the patient's medical history was non significant. Occasionally, the patient experienced discomfort, but he denied any precursor trauma or history of weightlifting.



[Table/Fig-1]: Varicose veins of the right upper extremity in the dependent position.

Upon inspection, multiple soft, cystic, compressible swellings were observed, with the largest measuring 3 cm in length and 2 cm in breadth on the ventral part of the left forearm along the spreading of the cephalic vein. The swellings reappeared upon relieving pressure and disappeared when the arm was raised above the head [Table/Fig-2]. The surrounding skin exhibited normalcy, with no signs of haemangioma. Pulses were normal bilaterally, and arms were equal in size. No varicosities were present on the right upper limb, and both lower limbs appeared normal. The main differential diagnosis was an aneurysm and Deep Vein Thrombosis (DVT). Aneurysm was excluded due to the absence of an audible bruit by the stethoscope overlying the swelling or distally in the line of the arteries of the upper extremity [1]. DVT was excluded due to the absence of pain, oedema, and discoloration over the swelling or underlying region [2]. Based on clinical examination, the diagnosis was a varicose vein of the left upper extremity.

Varicose veins arise from valvular insufficiency in deep, superficial, and perforating venous systems, causing blood backflow, elevated venous pressure, and subsequent distension of subcutaneous

veins in the lower extremities [3]. Predominantly affecting the legs, the present condition manifests with visible swelling and elevation of superficial leg veins, displaying a purple or blue hue. Spider veins, a milder form, share a similar vascular pattern. Haemorrhoids and varicocele denote varicosities near the anus and scrotal region, respectively [4]. Upper extremity varicose veins are exceptionally rare. Their presence can significantly impact an individual's quality of life, potentially signaling chronic venous insufficiency and an increased risk of blood clots [5].



[Table/Fig-2]: Varicose veins disappeared on raising the left forearm above the head.

The exact aetiology of upper limb varicose veins is not definitively established, but it likely involves collagen defects in vein walls and valvular incompetence. Primary valvular issues, particularly floppy valve cusps, may lead to deep venous reflux extending to the superficial system, causing venous dilation [6]. These varicosities are notably less common in thin-walled arm veins, partly due to lower standing hydrostatic pressure. Rare causes include congenital vascular anomalies like Klippel-Trenaunay Syndrome, Parkes-Weber Syndrome, and congenital arteriovenous fistulae, primarily observed in haemodialysis patients. Another uncommon cause is subclavian vein thrombosis-induced venous outflow obstruction [7]. Diagnosis involves a thorough history, physical examination, non invasive duplex investigations, and colour flow Doppler ultrasound. Invasive procedures are rarely necessary but may be employed in unique cases for further pathology definition [8].

Treatment for upper limb varicose veins closely mirrors lower limb approaches. Stab-avulsion procedure with stripping of longer segments has demonstrated outstanding cosmetic and practical

results. Various treatment options, including compression stockings, endovenous laser therapy, injection sclerotherapy, radiofrequency ablation, and surgical procedures such as stripping and avulsion phlebectomy, are available. Additionally, lifestyle modifications, incorporating advice on clothing, dietary adjustments, leg elevation, and regular exercise, play a crucial role in managing this condition [9]. Though upper limb varicose veins are exceptionally rare, accurate diagnosis and effective treatment, including surgical interventions akin to those for lower extremity varicose veins, can be pursued.

REFERENCES

- [1] Babar SMA. Aneurysms of the upper limb. Pak Heart J. 1991;24(3-4):24-31.
- [2] Saseedharan S, Bhargava S. Upper extremity deep vein thrombosis. Int J Crit Illn Inj Sci. 2012;2(1):21-26.
- [3] Joseph N, Abhishai B, Thouseef MF, Devi MU, Abna A, Juneja I. A multicenter review of epidemiology and management of varicose veins for national guidance. Ann Med Surg (Lond). 2016;8:21-27. Doi: 10.1016/j.amsu.2016.04.024.
- [4] Youn YJ, Lee J. Chronic venous insufficiency and varicose veins of the lower extremities. Korean J Intern Med. 2019;34(2):269-83. Doi: 10.3904/kjim.2018.230.
- [5] DeAvilaOliveiraR, RieraR, VasconcelosV, Baptista-SilvaJC. Injectionsclerotherapy for varicose veins. Cochrane Database Syst Rev. 2021;12(12):CD001732. Doi: 10.1002/14651858.CD001732.pub3.
- [6] MacKay D. Hemorrhoids and varicose veins: A review of treatment options. Altern Med Rev. 2001;6(2):126-40.
- [7] Welch HJ, Villavicencio JL. Primary varicose veins of the upper extremity: A report of three cases. J Vasc Surg. 1994;20(5):839-43. Available from: [https://doi.org/10.1016/S0741-5214\(94\)70174-1](https://doi.org/10.1016/S0741-5214(94)70174-1).
- [8] Fukaya E, Flores AM, Lindholm D, Gustafsson S, Zanetti D, Ingelsson E, et al. Clinical and genetic determinants of varicose veins. Circulation. 2018;138(25):2869-80. Doi: 10.1161/CIRCULATIONAHA.118.035584. PMID: 30566020; PMCID: PMC6400474.
- [9] Tisi PV. Varicose veins. BMJ Clin Evid. 2011;2011:0212.

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