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Review Article

SCOPE OF AYURVEDIC DRUGS AND LEECH THERAPY IN MANAGEMENT OF VARICOSE VEIN OF LOWER LIMB

Maresh Kumar*

Assistant professor, Dept of Shalya tantra, C.B.P.A.C.S. Najafgarh, New Delhi, India

	ABSTRACT
<p>*Correspondence Dr. Maresh Kumar Assistant professor, Dept of Shalya tantra, C.B.P.A.C.S. Najafgarh, New Delhi, India</p> <p>DOI: 10.7897/2321-6328.02129</p> <p>Article Received on: 09/01/14 Accepted on: 20/02/14</p>	<p>Varicose veins are appearing commonly among older people, in women, obese patient as overweight (which increases the excessive pressure in the veins of the lower limbs). The Modern medicine has a few invasive techniques, drugs and surgical procedure to cure this condition. In surgical practice the tortuous and damaged veins treated by stripping, tying, blocking, thus allowing secondary channels of circulation to take over the load. However, this is not a permanent cure as there is a possibility of recurrence. In Ayurveda herbal drug treatments, dietary changes, lifestyle modification, exercise and yoga with Leech therapy appear to work by strengthening the walls of veins and other vessels. They primarily relieve the symptoms of aching, heaviness, and swelling in the legs and ankles, thus it may be possible to treat the disease with satisfaction.</p> <p>Keywords: Varicose vein, Sirakautilya (kutilsira roga), Siragranthi, Leech, Ayurveda, Crape bandage</p>

INTRODUCTION

The incidence of varicose veins is 5 % in general population and more common in female (10:1).¹ In Ayurveda literature the varicose vein has no its separate elaborative identity as a disease but considered as a siravikruty (venous disorders) and named as sirakautilya or kutilsira²⁻³ disease by commentators. The scrutinize shows, may correlation with Siragranthi (a type of granthi roga) and is due to vatadosha⁴. Siragranthi mentioned by Acharya like Charak⁵, Sushruta⁶, Vagbhata⁷, Madhavnidana⁸, Sharangadhar⁹ etc. Sushruta described its cause as a person undertakes excessive exercise gets his network of veins affected due to vayu dosha which in turn compresses, squeezes and dries up and produce granthi which is raised and circular (Sushruta nidana 11/8,9). The swollen, bulging and twisted bluish veins that become visible just beneath the skin surface and filled with abnormal gathering of blood, are known as varicose veins, which may be Superficial (just below the skin surface with filled capillaries) or deep (located deep beneath the muscle). It happens due to irregular function of veins valves. Any condition that puts excessive pressure on the veins makes them dilated and twisted. They commonly affect the lower limb because of erect posture and long column of blood pools in both legs because of gravitational pull. Thus causes pressure on the veins, ultimately damaging the blood vessels as weakness and incompetence, which leads to varicosities. Physicians and patients can try Ayurveda as an alternative to surgery, laser procedure and catheter insertion. While those medical procedures have the risks of side effects, this can give holistic health. The patients don't have to get their veins surgically removed. The patients get a healthy and safe alternative to a risky procedure. The common causes are as excessive physical activity that puts pressure on the legs, standing for long periods of time, chronic tumours, sedentary lifestyle, tight clothing, chronic constipation and excess

toileting time with squat position, dietary deficiencies, old age (ageing leads to loss of skin elasticity as well as thinning of veins), overweight, hormonal imbalance during pregnancy and menopause in females etc. In this the blood remains in the veins causing pain (which may lead to inflammation inside the veins that further amplifies the pain), leg heaviness and fatigue, swollen, vein dilated and tortuous, dark purple appearance, ulcer etc. Ankle swelling especially in evening, irregular scar like patches can appear at the ankle, Cramps may develop especially when making a stand or move, aching, blood clotting within affected veins etc.¹⁰⁻¹²

Ayurvedic Management of Varicose Vein Preventive Measures

- Exercise and Yoga¹³⁻¹⁵- Yogic exercises (e.g. halaasana (head stand pose), pawanmuktasana, sarvangasana (shoulder stand pose), Sheershasana (head stand), viparita karani (legs-up-the-wall pose) as well as simple regular exercises (e. g. walking, swimming, cycling, etc.) to keep leg muscles toned, improve blood circulation and drainage of blood from legs. It should be practice regularly that when sleep on your back on the floor, raise your lower limb touching a wall, it pushed blood towards heart with the help of gravity.
- Crape bandage application¹⁶, it prevents excess dilatation of vein and ulcer formation making a support for better circulation.
- Other preventive measures – Control over weight, diet should be low in fat-sugar and salt, quit smoking as it increased blood pressure and worsen veins, wear elastic support stocking/crape bandage to relieve discomfort, foot elevation while sitting or resting for long periods of time, fibrous and unpolished diet, carrot and spinach juice daily suffices vitamin deficiencies in the legs, put your feet up a

few inches above heart level to assist backpressure of blood from legs, alternate hot and cold baths, stop contraceptive pills, if pregnant (sleep on left side rather than back), protein rich diet is important for building up the tissues, take whole food grains etc. Regular massage with Ayurvedic oils like Prasarini oil and Chandanabalalaakshadi oil is also helpful but no directly on the varicose veins, as it would increase pressure on them.

Curative Measures

Use of single herbs

- Pure Guggulu (*Commiphora mukul*), Neem (*Azadirachta indica*), Kanchanara (*Bahunia variegata*), Nagkesar, Triphala churna, Arjun (*Terminalia arjuna*), Brahmi (*Bacopa monnieri*), Daruharidra (*Berberis aristata*), Ashwagandha (*Withania somnifera*). It helps to maintain healthy lifestyle, reduces the pressure effects, relief in pain and inflammation, and maintains the normal tone of venous walls and their functions.
- Amlaki (*Embelica officinalis*) and other citrus fruits are essential since vitamin C deficiency is a prime cause of varicose veins, which is necessary for formation of collagen in connective tissues and essential in maintenance of integrity of intercellular cement in many tissues particularly capillary walls.¹⁸
- Garlic (*Allium sativum*) and Ginger (*Zingiber officinale*) can break down the protein content in the body and distribute it evenly. This increases the protein supply to the lower limb region. Hence, the condition of varicose veins can be prevented.
- Onion (*Allium cepa*) helps in the proper assimilation and distribution of protein in the human body. It is said to increase inner strength.
- Arjuna (*Terminalia arjuna*) and Guggulu (*Commiphora mukul*) are highly recommended to improve blood circulation and reduce inflammation¹⁷.

Use of compound drugs

Drugs like Arogyavardhini vati, Mahamanjistharishta, Jasad bhasma, Chandraprabha vati, Punarnavadi guggulu, Kanchnar guggulu, Lasunadi vati are also helpful.

Leech application

In Astanga Hridaya (Uttar stana 30/7) siravedha is indicated in siragranthi and among bloodletting procedures Leech therapy is safe and easier. Leeches are applied as a normal method on site of varicose vein and followed general procedures. First purify the leeches by putting them in turmeric mixed water for 5 minutes then keep in fresh plain water for 5 minutes. Clean the use site thoroughly with plain water and adequate numbers of leeches are applied to the area of maximal congestion. When Jalauka starts sucking the blood it attains shape of Ashvakhuravadanana¹⁹ i.e. its mouth end becomes the hoof of horse by raising its neck region. Put wet gauze or thin cotton pad covering the leech's body (head and mouth remained uncovered) and continuously pouring of fresh water is done. Once the leech attached, it will remain safely in place until fully distended and then detached itself (approximately after 30 minutes). After this leeches are purified and preserved it with patient identity details and again applied to the same patient weekly nearly 7- 8 times. The Leech reduce the local pressure on vein and surrounding

having , its saliva having anticoagulant, antibacterial, anaesthetic effect²⁰

DISCUSSION

In varicose veins stagnation of blood occurs due to defect in venous valve and engorgement of veins take place gradually, which lost the elasticity of wall and proficiency of valve. So it can be assumed that if one can reduce this local engorgement pressure, this may be helpful in better circulation, preserve vein valve competency and elasticity of vein walls. Putting this hypothetical thought in mind concept of raktamokshan by Leech applied in patients whose effects are encouraging with medicine and suggestion. The leeches suck the blood at local site and improve blood circulation, decline pressure on vein and surrounding, so elastic recoiling of veins maintained and prevent over dilatation. The leech's saliva contains enzymes and compounds that act as an anticoagulation agent e.g. hirudin, calin etc. Hirudin which binds itself to thrombin's, thus, effectively inhibiting coagulation of the blood. The saliva of the Leeches also contains Factor Xa inhibitor which also blocks the action of the coagulation factor Xa. The action of destabilise is to break up any fibrins that have formed. It also has a thrombolytic effect, which can also dissolve clots of blood that have formed. Bdelins is a compound in the leech's saliva that acts as an anti-inflammatory agent by inhibiting trypsin as well as plasmin. It also inhibits the action of the acrosin. Another anti-inflammatory agent is the eglins. There are three compounds in the leeches saliva that act as a vasodilator agent, and they are the histamine-like substances, the acetylcholine, and the carboxypeptidase A inhibitors. All these act to widen the vessels, thus, causing inflow of blood to the site. The saliva of leeches also contains anaesthetic substances which deaden pain on the site and also bacteria-inhibiting substances which inhibit the growth of bacteria. The preventive measures, crape bandages, yoga, exercise and Ayurvedic drugs describe above works basically on local site and improve patient condition, prevent worsen the condition.

CONCLUSION

On the basis of above description and encouraging result with patient satisfaction obtained in clinical practice, it can be says that Ayurvedic drugs and Leech therapy is cost effective, easily applicable at indoor-outdoor level, no harmful side effect and result oriented, if done properly. Leech therapy can be considered as an option for poor and surgically unfit patients. As per clinical experience, the opinion regarding Ayurvedic drugs, Leech therapy with diet and exercise are effective in managing varicose vein, although it needed more scientific research.

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