

Role of Jalaukavacharana in the Management of Varicose Veins: A Single Case Study

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ABSTRACT

Introduction: Varicose veins are common vascular disorder seen in middle and old aged people characterized by dilated, tortuous veins primarily affecting lower limbs. People in prolonged standing jobs as teacher, bus conductor, traffic police, housewives often suffer from varicose veins. In *Ayurveda*, varicose veins can be compared with *Sirajgranthi*.⁽¹⁾ *Jalaukavacharana* one of the methods of *Raktamokshana* along with oral medications brought significant relief in symptoms of varicose veins.

Material and method: A case study of 23 years old unmarried female patient with complaint of pain, muscle cramps, swelling and dilated superficial veins in right lower limbs since last 1.5 years is done. Eight sittings of *Jalaukavacharna* after every seven days were performed along with oral medications and results were observed.

Observation and result: The patient got relief in all symptoms including pain, cramps, tortuosity over right lower limbs.

Conclusion: *Ayurvedic* conservative management provides relief in symptoms as well as improves quality of life. *Jalaukavacharna* along with conservative management presents as a good alternative for patients seeking non-surgical options for management of varicose veins.

KEYWORDS: *Jalaukavacharna*, *Leech therapy*, *Varicose veins*, *Sirajgranthi*

INTRODUCTION

Varicose veins are normal saccular dilated, elongated and tortuous alteration in the saphenous veins and their tributaries.⁽²⁾ It is most commonly seen in superficial venous system of the lower limbs. Other sites of the varicosity are esophageal varices, hemorrhoidal veins (hemorrhoids), spermatic cords (varicocele). Worldwide prevalence of lower extremity varicose vein is 10% to 30%.⁽³⁾ About half of the adult population (women 55% - 60%; men 40% - 50%) have minor stigmata of venous disease, but only 20% - 25% of women and 10% - 15% of men have visible varicose veins.⁽⁴⁾

The primary causes of varicose veins are incompetence of valves of veins and weakness in walls of veins. Common symptoms of varicose veins are aching pain, heaviness, cramps, swelling, itching in the affected part. Symptoms typically increase

throughout the day or with prolonged standing and relieved by elevation of part or compression stockings.⁽⁵⁾ If left untreated, complications may occur including eczema, superficial thrombophlebitis, ulceration etc. Varicose ulcers are the most common complications of varicose veins. Predisposing factors of varicose veins include prolonged standing, obesity, pregnancy, old age, constrictive tight clothing and hereditary.⁽⁶⁾ In contemporary science, several treatment options are available such as medications, USG guided sclerotherapy, stripping method, endogenous laser treatment, surgical interventions and venous bypass, etc. but none of these is considered as ideal because they provide temporary relief, has high recurrence rate and produce side effects. Apart from this, these treatment modalities are expensive too. So, there is need to search alternate treatment modalities to treat them.

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Signs and Symptoms of varicose veins can be correlated with *Sirajgranthi* in *Ayurveda*. In *Ayurvedic* texts several effective formulations and therapies are mentioned for the management of *Sirajgranthi* (Varicose veins). According to *Acharya Sushruta*, *Vataprakopak Nidan* such as physical exertion, straining, prolonged standing causes vitiation of *Vata Dosha*. Vitiating *Vata Dosha* then enters into *Siras* (veins) causing *Sira Sampeedan* (squeezing), *Sira Sankoch* (tortuous vein), *Sira Utsedha* (inflammation), and *Sira Vishoshana* (roughness) which produces round and protruded *Granthi* in the *Siras*, manifesting *Sirajgranthi*.⁽⁷⁾ *Acharya Sushruta* has described *Jalaukavacharana* (leech therapy) as one of the methods of *Raktamokshana* (blood-letting). *Jalaukavacharana* is the most delicate method of *Raktamokshan* and is prescribed for children, kings, wealthy person, women and delicate person.⁽⁸⁾

Treatment procedures available in modern science have many drawbacks and do not provide complete relief to the patient. *Jalaukavacharana* provide very significant relief with minimum or no side effects and is cheap, cost-effective treatment for varicose veins.

Material and method–

Patient Name – XYZ	Religion – Muslim
Sex – Female	Marital status – Unmarried
Age – 23 years	Education – Graduate
Occupation – Teacher	Socio-economic status – Middle class

Chief complaint

1. Prominent, dilated, tortuous veins below knee, at posterior aspect of Right leg from last 1.5 years.
2. Heaviness and pricking pain (increased at evening and prolonged standing) in right leg from last 6 months.
3. Sudden cramps in Rt calf muscle and itching over site of varicosity from last 6 months.

History of present illness

A 23 years old unmarried female presented with the complaint of prominent, dilated, tortuous veins below knee, at posterior aspect of right leg since 1.5 years. Gradually she developed heaviness and pricking pain (increased at evening and prolonged standing) at same site. She also started feeling sudden cramps in Rt calf muscle and itching over site of varicosity since past 6 months. Symptoms get aggravated by prolonged standing and specially felt during evening hours. Along with these symptoms she had complaint of constipation also. She took treatment from nearby hospital and got temporary relief. Then she approached to OPD of Shalya Tantra, Gurukul campus, Haridwar for further management. After thorough examination she was advised for

Jalaukavacharana, after every 7 days for period of 2 months along with oral medications.

Past history

There was no past history of trauma, surgery, diabetes, hypothyroid and addiction.

Family history

No such family history was noticed.

Menstrual history

Menstrual history was normal.

General examination

- Patient was conscious and well oriented to person, place and time.
- Pallor, icterus – Not seen.
- Pulse rate – 80/min.
- Blood pressure – 120/70 mm/Hg.
- Temperature – 98.6 °F.
- Respiratory rate – 16/min.
- SPO₂ – 99% at room air.
- Height – 5 feet 4 inches.
- Weight – 71kg.

Local examination

1. Inspection - done in standing position.

- Localized swelling, dilated and tortuous veins are seen below right knee joint at the posterior aspect.
- No ulceration seen.

2. Palpation

- + ve Homan's sign (pain in the calf region on passive dorsiflexion of the foot)
- + ve Mose's sign (pain in calf region on gentle squeezing of calf region)
- No lymphadenopathy.
- Brodie -Trendelenburg test (feeling of impulse over lower part of vein when finger kept over lower part of vein and upper part is trapped) was negative.

Investigations

CBC, RBS, CT, BT, HIV 1&2, HCV, HBsAg and venous color doppler of lower limb were performed. CBC, RBS, CT, BT were within normal limits and all viral markers were non-reactive. In Venous Color Doppler of lower limbs few small tortuous grouped varicose veins seen on right calf back. No deep vein thrombosis (DVT) and incompetence of valves were seen.

Diagnosis

Varicose vein (on the basis of clinical sign, symptoms, examination and venous color doppler report).

Treatment

The patient was subjected for *Jalaukavacharana* along with oral medications. Patient was advised for

weight reduction and avoiding prolonged standing *Jalaukavacharana* was performed on patient after every 7 days for two months. Follow-up was performed after 1 month.

JALAUKAVACHARANA PROCEDURE –

The whole procedure was performed in 3 stages:

Poorvakarma – After explaining complete procedure written informed consent was taken from patient. *Jalaukas* was activated by placing them in turmeric water for 15 minutes, after that leeches are transferred in another tray having clean water.^[9]

Pradhan karma – 3 *Jalaukas* was applied to place where most discomfort and tortuosity were present. After application body of *Jalaukas* was covered with thin wet cotton pieces. After 45 minutes *Jalaukas* were removed with the help of turmeric powder.^[10] Proper bandage was applied to the site of leech application to prevent bleeding.

Pashchat karma – After establishing hemostasis, *Vaman* of *Jalaukas* were performed^[11] with turmeric powder and they were placed in container with label of patient's name and date. Patient was told to keep the leg in appropriate posture.

Oral medications

S. No.	Medication	Dose	Duration	Anupana
1.	Kaishore Guggulu	1 BD	2 Months	Luke warm water
2.	Medohara Guggulu	2 BD	2 Months	Luke warm water
3.	Chandraprabha Vati	2 BD	2 Months	Luke warm water

ASSESSMENT – Assessment of patient was done before, during and after the treatment on following parameters –

Table 1: Grading of Assessment Parameters

Symptoms	Criteria	Grading
<i>Shotha</i> (Edema)	Absent (no edema)	0
	Present (mild to moderate edema)	1
<i>Shoola</i> (Pain)	Absent (no pain)	0
	Mild (occasional pain after long exertion)	1
	Moderate (frequent pain)	2
	Severe (continuous pain throughout day)	3
<i>Kandu</i> (Itching)	Absent (no itching)	0
	Mild (occasionally present)	1
	Moderate (frequently present)	2
	Severe (present throughout day)	3
Tortuosity	Absent (no dilated veins)	0
	Mild (few dilated veins after exertion)	1
	Moderate (multiple veins confined to calf or thigh)	2
	Severe (extensive involvement of both calf and thigh)	3
Skin changes	Absent (no discoloration)	0
	Mild (blackish patchy hyper pigmentation)	1
	Moderate (hyper pigmentation with eczema)	2
	Severe (non-healing wound with discharge)	3

Table 2: Assessment before, during and after treatment

Symptoms	Before Treatment	After 1 Month (4 th Sitting of <i>Jalaukavcharan</i>)	After Treatment (8 th Sitting of <i>Jalaukavcharan</i>)	1 Month after Treatment
<i>Shotha</i> (Edema)	1	0	0	0
<i>Shoola</i> (Pain)	3	2	1	0
<i>Kandu</i> (Itching)	2	1	0	0
Tortuosity	2	1	1	1
Skin changes	1	1	1	0

RESULT – After completion of treatment, significant relief was seen in symptoms like pain, itching, edema and tortuosity was reduced. Dilated and convoluted veins in calf shrank and become prominent only after exertion.

Before treatment**After treatment**

DISCUSSION – *Jalaukavacharana* (Leech therapy), involves the application of leeches to promote healing and improve circulation. Saliva of leeches contain many bioactive substances including Hirudin, Hyaluronidase, Destabilase, Calin, Tryptase inhibitor, Bdelins, Factor xa inhibitors, Acetylcholine, Histamine-like substance, Carboxypeptidase A inhibitor.^[12] Hirudin, which is an anticoagulant prevent conversion of fibrinogen into fibrin thus inhibit blood coagulation. This also help to reduce blood viscosity and improve venous blood flow. The vasodilation agents help widen the vessel walls by dilating them. Anti-inflammatory and anesthetic effect of the leech's saliva provide relief from inflammation and pain.^[13]

Probable mode of action of *Jalaukavacharana*

Jalaukavacharan causes purification of body by removing deeply seated toxins and pacifying vitiated *Dosha*. Varicose Veins (*Siragranthi*) occur due to the vitiation of *Vata* and *Pitta Dosha* which further results in vitiation of *Rakta Dhatu*. *Sthansamshraya* of *Dosha* and *Dhatu* occur in *Raktavaha Sarotas*, then sign and symptoms of *Sirajgranthi* is seen. *Jalauka* application resulting in purification of *Rakta* (blood) by removing impure blood and *Dushita Dosha* from body. *Jalaukavacharana* also help in removing stagnant blood in *Siras* due to obstruction (causing *Vaivarnya* / skin discoloration) and maintain proper blood flow which help in restoring natural skin color.

CONCLUSION – Anti-inflammatory, anticoagulant, thrombolytic, vasodilating, and lymph flow accelerating substances in the saliva of leeches significantly reduces symptoms of varicose vein. Despite its potential benefits, there are risks associated with leech therapy, including infection and allergic reactions. Therefore, it is crucial to conduct a thorough patient assessment and ensure that the procedure is performed in a sterile environment. Along with leech therapy patient should be advised for compression stockings, weight normalization, dietary modifications etc. for better result. Leech therapy presents as a good alternative for patients

seeking non-surgical options for management of varicose veins. Thus, we can conclude that leech therapy is effective, safe, cost-effective, and has encouraging potential in prevention of complications of varicose veins.

References –

- [1] Sushruta Samhita Nidana Sthana 11/8-9, hindi commentary ayurveda Tattva sandipika written by Kaviraj Ambikadatta Shastri by Chaukhambha Orientalia, Varanasi-221005.
- [2] Dr. Somen Das, A Concise Text Book of Surgery, 4th edition. Calcutta, 2006, pg no: 202-210.
- [3] Callam MJ. Epidemiology of varicose veins. Br J Surg. 1994 Feb;81(2):167-73. doi: 10.1002/bjs.1800810204. PMID: 8156326.
- [4] Bailey & Love's, Short Practice of Surgery, Edited by Norman Williams, Christopher, Russell, Edward Arnold publications, 26th edition, chapter 57, pp-1435pg 903, http://en.wikipedia.org/wiki/varicose_vein_in_India
- [5] Dr. S. Das. A Concise Textbook of Surgery, 4th edition. Calcutta, 2006, pg no:202-210.
- [6] SRB's Manual of Surgery, Jaypee Brothers Medical Publishers, 7th edition, reprint 2023, Chapter 15, pg no. 252.
- [7] Acharya Susrutha: Susrutha Samhita With Nibandha sangraha Commentary of Dalhanacharya and Nyayachandrika Panchika of Gayadasa edited by Yadavji Trikamji, Published by Chaukamba Orientalia, Varanasi 2012, Chapter-11,pg 311.
- [8] Sushruta Samhita Sutra Sthana 13/3, hindi commentary ayurveda Tattva sandipika written by Kaviraj Ambikadatta Shastri by Chaukhambha Orientalia, Varanasi-221005.
- [9] Sushruta Samhita Sutra Sthana 13/19, hindi commentary ayurveda Tattva sandipika written

by Kaviraj Ambikadatta Shastri by
Chaukhambha Orientalia, Varanasi-221005.

by Kaviraj Ambikadatta Shastri by
Chaukhambha Orientalia, Varanasi-221005.

- [10] Sushruta Samhita Sutra Sthana 13/19-21, hindi commentary ayurveda Tattva sandipika written by Kaviraj Ambikadatta Shastri by Chaukhambha Orientalia, Varanasi-221005.
- [11] Sushruta Samhita Sutra Sthana 13/22, hindi commentary ayurveda Tattva sandipika written by Kaviraj Ambikadatta Shastri by Chaukhambha Orientalia, Varanasi-221005.
- [12] Andreas Michalsen, Manfred roth, gustav dobos, medicinal leech therapy, New York 2007, pg no.132-138.
- [13] Review on leech application on ayurveda and shrilankan traditional medicine, by E.R.H.S.S Ediriveera, article published in JAHM, volume 2, issue 1.

