



## A Case Study – Role of Leech Therapy (*Jalaukavcharana*) in Varicose Vein.

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### ABSTRACT:

Varicose veins are saccular dilatations of veins that are frequently convoluted. Certain vocations, such as bus drivers and police officers, necessitate lengthy standing, and those who work in these positions are prone to varicose veins. It can also happen to those who do a lot of muscle work, including rickshaw pullers and sportsmen. Varicose veins are often referred to *Sirajagranthi* in Ayurveda. According to Acharya *Sushruta*, *Vata prakopaka nidanas* such as physical exertion and straining cause *Vata* to enter the *Siras*, creating *Sampeedana*, *Sankocha*, and *Vishoshana* and triggering *Granthi* production in the *Siras*, displaying *Sirajagranthi*. Ayurveda reveals *Raktamokshana* as a treatment for varicose veins. *Raktamokshana* was done as *Jalaukavacharana*. This is a case study of a 36-year-old male patient with a history of varicose veins who complained of discomfort, muscular spasms, and blackish discoloration over the past three years. Before 5 years ago, he had a varicose vein stripping operation for the same issue. *Jalaukavacharana* was performed once a week for one month. The patient had complete relief from all symptoms, as well as a noticeable improvement in the blackish discoloration of both legs.

**Keywords:** *Sirajagranthi*, *Granthi*, *Jalaukavacharana*, *Raktamokshana*

### INTRODUCTION

Varicose veins are the result of verticality in the face of gravity. Varicose veins commonly induce symptoms, the most prevalent of which is soreness or heaviness, which usually worsens during the day or with extended standing and can be eased by elevation or compression stockings.

Ankle swelling and itching are two less prevalent symptoms. Typically, the presence of convoluted dilated subcutaneous veins is clinically noticeable. In nearly 80% of instances, they are restricted to the long and short saphenous networks, respectively. Varicose veins are caused by the incompetence of the valves and the fragility



of the vein walls. Secondary causes include venous outflow blockage caused by pregnancy, fibroid, ovarian cyst, pelvic cancer, ascites, and deep vein thrombosis. Prolonged standing, advanced age, obesity, hormone replacement medication, and other risk factors for varicose veins are all frequent. The incidence of visible varicose veins in adults is 25–30% in women and 15% in men<sup>[1]</sup>. People who work in occupations that require them to stand for long periods of time, such as police officers, bus drivers, and so on, are prone to varicose veins. In modern medicine, the treatment of varicose veins includes surgical procedures such as vein stripping and sclerotherapy. These methods, however, have adverse effects and do not give total relief.

The primary vitiated *Doshas* in *Sirajagranthi* are *Vata* and *Rakta*. By doing *Jalaukavacharana*, the stagnant vitiated blood is evacuated, which aids in the retention of the *ChalaGuna* of *Vata*. *Jalaukavacharanam* moves the *DushtaRakta* and clears the dosha route by eliminating *Srothorodha*. It contains *AashukariGuna*, which, like the *Anushastra* method, has a faster effect in easing symptoms. When *Jalauka* begins sucking blood, it releases hirudin, which dilutes and preserves the blood in a liquid state (anticoagulant). This hirudin acts to keep the blood from clotting throughout the surgery. *Jalaukavacharana* is a simple treatment that may be practised at all levels of OPD.

## CASE STUDY

On December 14, 2020, a 36-year-old patient attended the OPD of Seth KaniramTak Government Ayurvedic Hospital, Jodhpur. Since last 3 years, he had complained of blackish discoloration of the skin with itching from the calf area to the dorsum of the foot on both legs, as well as noticeable dilated and tortuous veins at the medial aspect of the calf region on the left leg. Since last 6 months ago, he has experienced dull, agonising discomfort in the calf region of his left leg that worsened with prolonged standing and was accompanied by oedema.

He had a history of varicose vein stripping in both limbs prior to the age of five. Complications from the procedure resulted in blackening of the skin below the knee joint till the dorsum of the foot on both lower limbs. This resulted in dryness of the skin in that area, as well as itching and a burning feeling.<sup>[2]</sup> He went to the government civil

hospital for the same problem and was given modern medication. The doctor recommended *Jalaukavacharana* for the same. Later, he was sent to the Seth KaniramTak Government Ayurvedic Hospital, Jodhpur for further treatment.

On examination, there was discomfort, oedema, and dilated tortuous veins in the left lower limb's calf area.

Both legs had blackish discoloration of the limbs, as well as itching. The pain was dull and agonising in character, and it worsened when it stood for an extended period, especially in the evening. Elevating the legs reduced the pain. The patient's Homan's sign (pain in the calf area on passive dorsiflexion of the foot) and Moose's sign (pain in the calf region on mild pressing of the calf region) were both negative.

*Jalaukavacharana* was performed on the patient once every seven days. One month following the therapy period, a follow-up was performed.

### ***Jalaukavacharana* Procedure:**

#### ***Poorvakarma* (Pre-operative Procedure):**

- Patient's written consent was obtained.
- All pre-procedure investigations, such as RBS, BT, and CT, were performed and found to be within normal limits.
- The procedure was explained to the patient.
- All instruments needed for the procedure were prepared.
- *Jalauka* activated.

#### ***Pradhankarma* (Main Procedure):**

- 3 *Jalauka* in each leg administered to the most afflicted place, where the highest tortuosity and discomfort were discovered.
- *Jalauka* applied for around 45 minutes.
- 2 *Jalauka* detach themselves, while others were detached by putting *Haridraon* their mouth.
- Patient complains of burning at the sight.
- Proper bandage applied to prevent post-procedure bleeding.

### ***Pashchaat Karma* (Follow-up Procedure):**

- Haemostasis established
- Proper *Vaman* of *Jalauka* performed.
- After *Vaman*, *Jalauka* placed in container with label of patient's name and date.
- The patient was told to keep the leg in the appropriate posture.
- The patient was encouraged to follow a diet and a regimen.
- The nursing staff was advised to notify the doctor if any condition, such as bleeding, or any other complaint, arose.

### **GRADING OF ASSESSMENT**

#### **PARAMETERS**

#### **A. SUBJECTIVE PARAMETERS**

##### **1. *Shoola***

- 0 - Absent No pain.
- 1 - Mild Occasional pain after long exertion
- 2 - Moderate Frequent Pain.
- 3 - Severe Pain throughout the day

##### **2. *Kandu***

- 0 - Absent
- 1 - Present

##### **3. *Daha***

- 0 - Absent
- 1 - Present

#### **B. OBJECTIVE PARAMETERS**

##### **1. *Shotha***

- 0 - Absent
- 1 – Present

##### **2. Tortuosity**

- 0 - Absent No dilated veins.
- 1- Mild Few veins dilated after exertion.
- 2 - Moderate Multiple veins confined to calf or thigh.
- 3 - Severe Extensive involving both calf and thigh.

##### **3. Skin changes**

- 0 - Absent No discolouration.
- 1 - Mild Blackish patchy hyperpigmentation.

- 2 - Moderate Hyperpigmentation with eczema.

### **Assessment Chart (Table 1-2)**

### **RESULTS:**

Only when exerted do the clinical symptoms of varicose appear. At the conclusion of the fourth week, the hyperpigmentation caused by eczema below the veins had improved. Pain, irritation, oedema, and a burning feeling were greatly decreased. Dilated and convoluted veins in the calf area shrank and became conspicuous, and the knee joint extending to the dorsum of the foot shrank significantly into patchy blackish discoloration that became distributed, as seen in Figures 1 to 6.

### **DISCUSSION**

The built up of *Rakta* and vitiation of *Vata* in *Siras* causes *Siraasphithi* (vein dilation) and *Vakrekarana* (tortuosity).<sup>[3]</sup> This process causes local congestion, resulting in *Shoola* and *Shotha*. *Jalaukavacharana*'s repeated bloodletting reduces local *Shotha* by alleviating local congestion (which includes metabolic poisons and dead tissue debris) by eliminating vitiated blood first. As a result, a portion of *Shotha* is relieved in the first phase. Healthy and nutritious blood is sent to the area where the stasis has been removed.

This stimulates the restoration of the health of the surrounding tissue as well as the vessel wall, which takes just a short period, i.e., the second phase. Thus, by eliminating the stagnant vitiated blood that had been utilised for *Sanga*, *Jalaukavacharana* decreases localised intravascular pressure and volume, easing *Shoola* and *Shotha*. The study only slightly alleviated tortuosity. The cause might be a mechanical flaw, and the stress in the region is only partially released.<sup>[4]</sup>

In the study, *Kandu* (itching sensation) was detected in chronic varicose veins sufferers. Due to the stagnation of *Dushta Rakta*, it was generally connected with *Shotha*. The employed modality alleviated the problem. This treatment immediately alleviates the *Daha* (burning feeling). This might be due to the fact that *Daha* is an Ayurvedic trait of *Pitta* and *Rakta*, and the modality used here is *Jalaukavacharana*, which is said to contain *Pittahara* and *Raktahara* properties.<sup>[5][6][7]</sup>

*Vaivarnya* (discoloration) is caused by blood stasis in the veins. This causes haemolysis of the blood, which results in the deposition of haemosiderin pigment in the skin, resulting in the blackish discoloration seen in varicose vein patients.<sup>[8][9]</sup> The *DushtaRaktas* drained away by *Jalaukavacharana*, followed by the flow of regular blood. Because there is no additional blood stasis, there is no following haemolysis, reducing *Vaivarnya* and restoring natural skin colour.

## CONCLUSION

*Jalaukavacharana* showed early results in lowering the indications and symptoms of *Sirajagranthi*, particularly in symptoms such as *Shoola*, *Daha*, *Shotha*, and *Kandu*. After a one-month follow-up, there was no recurrence of the surgery, highlighting it as a successful long-term treatment for varicose veins.

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**Assessment Chart (Table 1-2)**

**SUBJECTIVE PARAMETERS**

	<b>DAY 1 /BT</b>	<b>DAY 7 /DT1</b>	<b>DAY14 /DT2</b>	<b>DAY 21 /DT3</b>	<b>DAY 28 /DT4</b>	<b>DAY 58 /FU1</b>
<b>SHOOLA</b>	3	3	2	1	0	0
<b>KANDU</b>	1	1	1	0	0	0
<b>DAHA</b>	1	1	1	0	0	0

**OBJECTIVE PARAMETERS**

	<b>DAY 1 /BT</b>	<b>DAY 7 /DT1</b>	<b>DAY14 /DT2</b>	<b>DAY 21 /DT3</b>	<b>DAY 28 /DT4</b>	<b>DAY 58 /FU1</b>
<b>SOTHA</b>	1	1	1	0	0	0
<b>TORTUOSITY</b>	3	3	2	1	1	1
<b>SKIN CHANGES</b>	2	2	1	1	1	1



Fig – 1



Fig -2



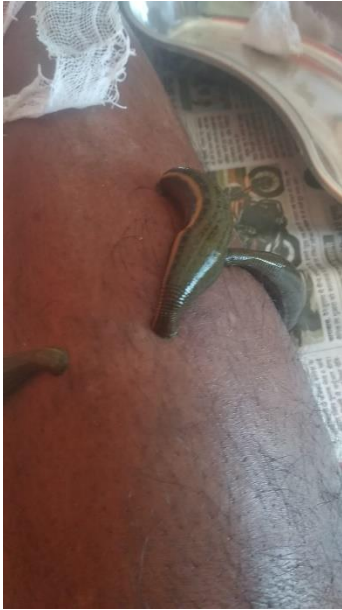


Fig -3



Fig -4



Fig - 5



Fig -6