

## Varicose Vein Management Using *Jalaukavacharana*

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### ABSTRACT

Varicose veins (*Siragranthi*) are a common vascular disorder of the lower limbs characterized by dilated, tortuous, and engorged superficial veins due to venous valve incompetence. In Ayurveda, this condition is described under *Sira Vyadhi* or *Siragranthi*, caused by vitiation of *Vata*, *Kapha*, and *Rakta doshas*. Among the therapeutic approaches, *Raktamoksana* (bloodletting) is a principal purification therapy, and *Jalaukavacharana* (leech application) is a safe and effective form of localized bloodletting. The present article discusses the Ayurvedic rationale, therapeutic mechanism, procedure, and supporting clinical evidence for *Jalaukavacharana* in managing varicose veins.

**Keywords:** Varicose Vein, *Siragranthi*, *Jalaukavacharana*, Leech Therapy, *Raktamoksana*, *Ayurveda*, Venous Disorders

### INTRODUCTION

A chronic venous condition called varicose veins causes superficial veins to dilate and become tortuous, especially in the lower limbs. Heaviness, pain, burning, discolouration, edema, and in more severe cases, venous ulcers are among the symptoms. Common etiological variables include obesity, sedentary lifestyles, prolonged standing, and genetic predisposition. In Ayurveda, this condition is analogous to *Siragranthi*, mentioned by Acharya Sushruta as a disorder caused by *Vata vitiation* in veins (*Sira*), leading to their enlargement and nodular appearance. The pathological involvement of *Vata*, *Kapha*, and *Rakta doshas* results in venous obstruction, stagnation, and distension<sup>1</sup>.

*Raktamoksana* (therapeutic bloodletting) is described as the prime treatment for disorders involving *dushtarakta* (vitiated blood). Among its methods, *Jalaukavacharana* is considered most suitable for delicate patients and for conditions of localized venous congestion, inflammation, or pain - making it ideal for *Siragranthi* (varicose veins).

### AYURVEDIC UNDERSTANDING OF *SIRAGRANTHI* (VARICOSE VEINS)

- **Nidana (Etiology):** Excessive standing, heavy physical activity, suppression of natural urges, constipation, and trauma cause *Vata-Kaphaja* vitiation.
- **Samprapti (Pathogenesis):** Vitiated *Vata* causes obstruction and dryness in the veins; *Kapha* adds heaviness and stagnation, while *Rakta dushti* causes swelling and discoloration. Together they produce *Granthi* (nodular swelling) in the *Siras*.
- **Laksana (Symptoms):** Twisting and bulging of veins, pain, burning, itching, heaviness, pigmentation, ulceration, and muscle cramps.

- **Chikitsa Sutra (Treatment Principle):**

- *Raktamokṣaṇa* (bloodletting) for congestion and vitiated blood removal
- *Vata-Kapha Shamana* therapy
- *Snehana* and *Swedana* (oleation and sudation) locally
- Use of *Rasayana* drugs for vascular strengthening

### **Jalaukavacharana (Leech Therapy)**

#### **Definition and Classical Reference**

*Jalaukavacharana* is a para-surgical procedure described by Acharya Sushruta in *Sushruta Samhita*, *Sutra Sthana* 13/4–13/9, as a method of *Raktamokṣaṇa* using medicinal leeches (*Jalauka*). It is especially recommended for delicate patients (*sukumararogi*).

“*Suksmasrngahṣitahsnigdhaḥmrdusirsajalaukahsonitadustitesusadhuh...*” (*Su.Su.13/4*)

Meaning - leeches of mild nature are beneficial in conditions involving vitiated blood and local inflammation<sup>2</sup>.

#### **Therapeutic Rationale in Varicose Veins**

- **Removes *dushtarakta* (vitiated blood):** Relieves venous congestion and stagnation.
- **Reduces *kleda* and *sotha* (moisture and swelling):** Decreases edema and heaviness.
- **Pacifies *Vata* and *Kaphadoshas*:** Balances the main causative factors.
- **Improves microcirculation:** Restores normal blood flow and tissue oxygenation.
- **Aids healing:** Beneficial in venous ulcers and skin discoloration.

#### **Modern Correlation and Pharmacological Basis**

Leech saliva contains more than 100 bioactive compounds, among them:

- **Hirudin:** Potent anticoagulant that inhibits thrombin activity.
- **Calin:** Prevents platelet aggregation.
- **Destabilase:** Promotes fibrinolysis and dissolves micro-thrombi.
- **Eglins and Bdelins:** Possess anti-inflammatory and analgesic actions.
- **Hyaluronidase:** Increases tissue permeability, aiding drainage of inflammatory fluids.

Together, these substances improve venous return, reduce inflammation, and promote healing physiologically explaining the therapeutic action of *Jalaukavacharana* in varicose veins.

#### **Procedure of *Jalaukavacharana*<sup>3</sup>**

##### **1. *PurvaKarma* (Pre-procedure)**

- Patient assessed for suitability (no bleeding disorders, anemia, diabetes).
- Site (usually around the affected varicose veins) cleaned with sterile water or turmeric decoction.
- Healthy, non-infected leeches are selected.

## 2. PradhanaKarma (Main Procedure)

- Leeches are applied near the affected veins; they attach naturally.
- Once satiated (after 2-40 minutes), they detach spontaneously or are removed using turmeric powder or salt.
- Blood oozing is allowed for a few minutes to ensure removal of vitiated blood.

## 3. PaschatKarma (Post-procedure)

- Site cleaned and dressed with sterile gauze and turmeric paste.
- *Triphalachurna* or *ManjisthadiKwatha* used for cleansing if necessary.
- Internal medicines such as *Kaishora Guggulu*, *PunarnavadiKwatha*, or *ChopchinyadiChurna* can be prescribed.
- Procedure repeated weekly for 4-6 sittings as per severity.

## Clinical Evidence and Case Studies

### 1. Kubavat H. K. et al. (2018)<sup>4</sup>

A single case of *Siragranthi* managed with weekly *Jalaukavacharana* for four weeks showed marked reduction in pain, swelling, and discoloration. Reference: *International Journal of AYUSH Case Reports*, 2018; 2(1):30-35.

### 2. Bhati D. S., Sharma V. D., Gupta R. K. (2021)<sup>5</sup>

A male patient with varicose veins received leech therapy once weekly for one month. Significant relief was observed in pain, edema, and pigmentation. Reference: *International Research Journal of Ayurveda & Yoga*, 2021; 4(11):78-83.

### 3. Jain J. (2022)<sup>6</sup>

Leech therapy used in varicose veins with eczema showed improved microcirculation and skin texture. Reference: *International Journal of Applied Ayurvedic Research*, 2022; 5(10):763-767.

### 4. Kumar Nitin (2024)<sup>7</sup>

A review article summarized multiple studies indicating *Jalaukavacharana* as a safe, economical, and effective therapy for varicose veins and venous ulcers. Reference: *International Journal of AYUSH*, 2024; 13(8):10-17.

## Observations from Clinical Studies

- **Symptomatic relief:** Reduction in pain, heaviness, and itching within 2–3 sittings.
- **Objective improvements:** Decreased vein diameter, reduced edema and pigmentation.
- **Ulcer healing:** Faster granulation and reduced discharge.
- **No major side effects:** Mild local irritation or itching manageable with antiseptic care.

## Advantages of Jalaukavacharana

- Non-invasive and cost-effective.
- Safe for elderly and weak patients.
- Provides both local and systemic benefits through detoxification.
- Reduces recurrence when combined with lifestyle management.

### Precautions and Contraindications

- Avoid in anemia, bleeding disorders, pregnancy, and active skin infections.
- Maintain sterile conditions to prevent infection.
- Proper disposal of leeches after use (bio-waste protocol).
- Monitor for excessive bleeding or allergic reactions.

### DISCUSSION

From an Ayurvedic standpoint, *Jalaukavacharana* directly addresses the *Samprapti* (pathogenesis) of *Siragranthi* by removing *Dushta Rakta*, pacifying *Vata* and *Kapha*, and enhancing circulation. Modern findings support these effects through the pharmacological actions of leech saliva.

Even though laser and surgical procedures are common in contemporary medicine, they frequently result in recurrence and mainly provide mechanical repair. *Jalaukavacharana* improves skin health, relieves symptoms, and naturally increases venous return. Varicose veins can be managed holistically by combining this treatment with dietary changes, topical oil application, and internal herbal remedies.

### Future Research Directions

- Large randomized controlled trials comparing *Jalaukavacharana* with conventional therapy.
- Doppler-based evaluation before and after treatment.
- Biochemical studies on leech saliva's effect on venous blood flow.
- Long-term outcome and recurrence rate assessment.

### CONCLUSION

*Jalaukavacharana* is an effective, minimally invasive, and safe Ayurvedic therapy for managing varicose veins. By enhancing venous circulation and lowering local inflammation, it provides notable relief from pain, edema, and discolouration. It offers a comprehensive method of treating *Siragranthi* (varicose veins) when paired with internal drugs, food, and lifestyle changes. It can be established as an integrative tool in the management of venous disorders with additional scientific support through carefully planned clinical research.

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