

# Revisiting Raktarsha Chikitsa Through Jalaukavacharana: An Evidence Based Ayurvedic Perspective

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## Abstract

**Background:** Raktarsha (bleeding piles) is one of the most common Gudagata Vikaras that severely affects the quality of life through persistent bleeding, pain, and discomfort. Despite the availability of multiple treatment modalities in Ayurveda—Bheshaja, Kshara, Agni, and Shashtra Karma—there is a rising need for minimally invasive and effective approaches. Jalaukavacharana (leech therapy), a form of Raktamokshana, holds promise in Raktarsha Chikitsa due to its Shothahara, Vedanasthapana, and Raktashodhana properties. This review reanalyzes classical insights and clinical evidence supporting the efficacy of Jalaukavacharana in the management of Raktarsha. **Aim:** To reevaluate the role of Jalaukavacharana in Raktarsha Chikitsa by integrating classical Ayurvedic principles with modern evidence based research. **Objectives:** To explore the classical references and rationale of using Jalaukavacharana in Raktarsha To assess clinical outcomes and mechanisms of action from recent evidence To suggest an integrative therapeutic model based on Ayurvedic and biomedical insights **Materials and Methods:** An extensive review was conducted on classical Ayurvedic texts including Sushruta Samhita, Ashtanga Hridaya, and Chakradatta, along with a systematic search of published clinical trials and research articles from databases like PubMed, AYUSH Research Portal, and Google Scholar. Both observational and interventional studies evaluating Jalaukavacharana for hemorrhoidal disorders were included. **Results:** Classical texts emphasize Jalaukavacharana as a preferred Raktamokshana method for Raktaja Vikaras. Recent clinical studies have demonstrated significant reduction in bleeding, pain, swelling, and recurrence rate of Raktarsha following repeated sittings of Jalaukavacharana. The antiinflammatory and anticoagulant properties of leech saliva components like hirudin and calin corroborate traditional claims. **Conclusion:** Jalaukavacharana emerges as a safe, effective, and evidence based Ayurvedic intervention in the management of Raktarsha. Integrating this traditional therapy into modern proctology could provide a holistic and patient friendly approach, especially in chronic and recurrent cases.

**Keywords:** Raktarsha, Jalaukavacharana, Raktamokshana, Leech Therapy, Bleeding Piles, Ayurvedic Proctology.

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## INTRODUCTION

Raktarsha (bleeding piles) is a subtype of Arsha, a painful and bleeding anorectal disorder extensively described in Ayurvedic literature. The term Arsha itself denotes a condition that behaves like an enemy, afflicting the patient with continuous distress. It is classified based on Dosha dominance, site, and presence or absence of bleeding (Raktarsha and Shushkarsha). Among these, Raktarsha is marked by profuse bleeding along with other symptoms such as pain, prolapse, and irritation in the anal region. Its chronicity and frequent recurrence demand an effective, safe, and sustainable therapeutic approach.<sup>1</sup>

The line of treatment for Arsha includes four main modalities as described by Acharya Sushruta—Bheshaja, Kshara, Agni, and Shashtra Karma. While Shashtra Karma (surgical intervention) is often considered effective in advanced stages, it may lead to complications such as bleeding, infection, and recurrence if not performed with precision and postoperative care. Therefore, the exploration of minimally invasive, non-surgical, yet effective procedures like Raktamokshana (bloodletting) becomes imperative, especially for conditions like Raktarsha that involve Raktadushti (vitiation of blood).<sup>2</sup>

Jalaukavacharana (leech application) is a specialized form of Raktamokshana advocated particularly for delicate patients and in Raktapradhana Vyadhis. The leech, through its natural mechanism, draws impure blood while simultaneously injecting bioactive molecules such as hirudin, calin, and eglins that provide

antiinflammatory, analgesic, anticoagulant, and antimicrobial benefits. This ancient technique aligns well with the principles of modern biomedical science and offers a safe therapeutic intervention that does not require surgical equipment or anesthesia.<sup>3</sup> The classical texts such as Sushruta Samhita, Ashtanga Hridaya, and Chakradatta have recommended Jalaukavacharana in conditions like Raktapitta, Twak Vikaras, Netra Roga, and Raktarsha. The procedure is considered safe, repeatable, and patient friendly with minimal complications. Its direct action on local congestion and vitiated Rakta Dhatu makes it an effective modality for treating hemorrhoidal bleeding, inflammation, and pain. Modern clinical studies have begun validating these claims with evidence showing significant symptom reduction and better patient outcomes.<sup>4</sup>

With the growing interest in integrative medicine and evidence based validation of traditional therapies, it becomes essential to revisit time tested Ayurvedic treatments like Jalaukavacharana. This review aims to compile classical references and analyze recent clinical evidence to understand the efficacy and scope of Jalaukavacharana in the management of Raktarsha. It also seeks to bridge the gap between ancient knowledge and contemporary clinical practice, contributing to the development of safe, non-invasive, and effective proctological care.<sup>5</sup>

### **Aim And Objectives**

#### **Aim**

To evaluate the therapeutic efficacy of Jalaukavacharana in the management of Raktarsha by integrating classical Ayurvedic concepts with contemporary clinical evidence.

#### **Objectives**

- To explore classical references supporting the use of Jalaukavacharana in Raktarsha Chikitsa
- To assess the clinical effectiveness and safety of Jalaukavacharana through recent studies
- To analyze the probable mode of action of Jalaukavacharana in relieving symptoms of Raktarsha
- To promote evidence based, minimally invasive Ayurvedic therapy for bleeding piles

## **MATERIALS AND METHODS**

### **Source of Data**

The clinical study was conducted at the Department of Shalya Tantra, G.S. Ayurvedic Medical College and Hospital, Pilkhuwa, Hapur (Uttar Pradesh). Patients diagnosed with Raktarsha (bleeding piles) attending the OPD and IPD of the hospital were selected based on predefined diagnostic criteria.

### **Study Design**

This was an open-label, single-arm interventional clinical trial aimed at evaluating the efficacy of Jalaukavacharana (leech therapy) in the management of Raktarsha.

### **Method of Collection of Data**

Patients fulfilling the diagnostic criteria for Raktarsha were selected through purposive sampling. A detailed case history was recorded, including demographic details, dietary habits, clinical signs and symptoms, and duration of illness. Written informed consent was obtained before enrollment. Pre-treatment and post-treatment assessments were performed using both subjective and objective criteria.

### **Inclusion Criteria**

- Patients aged between 20 and 60 years
- Diagnosed cases of Raktarsha with active bleeding
- Patients willing to undergo Jalaukavacharana and follow-up
- Hemoglobin level  $\geq 9$  g/dL

### **Exclusion Criteria**

- Bleeding piles with prolapse requiring surgical intervention
- Severe anemia (Hb  $< 9$  g/dL)
- Patients with diabetes mellitus, hemophilia, bleeding diathesis, or immune-compromised conditions
- Pregnant and lactating women
- Patients on anticoagulant therapy or with known allergy to leech saliva

### **Assessment Criteria**

### Subjective Parameters

- Bleeding per rectum (frequency, duration, amount)
- Pain during defecation (graded on VAS – Visual Analogue Scale)
- Heaviness in anal region
- Itching and discomfort
- Quality of life improvement

### Objective Parameters

- Reduction in size of pile mass (if present externally)
- Hemoglobin level (pre and post treatment)
- Number of leeches used and duration of therapy
- Recurrence within follow-up period

### Procedure

The procedure of Jalaukavacharana (leech application) was performed with adherence to classical Ayurvedic principles and under aseptic precautions in the Department of Shalya Tantra, G.S. Ayurvedic Medical College and Hospital. It followed the standard protocol described in Sushruta Samhita and Ashtanga Hridaya, along with practical clinical guidelines.<sup>6</sup>

#### Purva karma (pre-procedural measures):

- **Patient preparation:** The patient was advised a light diet the night before the procedure and a mild Virechana or Mridu Anulomana was administered in cases with Ama Lakshana.
- **Positioning:** The patient was made to lie in left lateral position (Simhasana posture) with knees flexed for easy access to the anal region.
- **Local cleaning:** The perianal area was cleaned with warm Triphala Kwatha or Haridra decoction to remove dirt and ensure sterility.
- **Activation of leech:** Healthy medicinal leeches (*Hirudo medicinalis*) were selected and kept in clean water. Prior to application, they were activated by rubbing a small quantity of Mustard paste or pricking their mouth slightly with a sterile needle.<sup>7</sup>

#### Pradhana Karma (Main Procedure):<sup>8</sup>

- **Leech application:** One to two medicinal leeches were applied gently over the Guda Pradesh near the engorged pile masses, especially avoiding direct placement over active bleeding sites to prevent excessive blood loss.
- **Attachment confirmation:** Within 1–2 minutes, the leeches adhered to the site and began sucking blood.
- **Observation:** The sucking process lasted for 20–30 minutes or until the leech detached naturally after full saturation.
- **Intervention if required:** If detachment did not occur spontaneously, application of a small amount of rock salt or turmeric powder near the anterior sucker facilitated detachment.

#### Paschat Karma (Post-Procedural Care):<sup>9</sup>

- **Site dressing:** After removal, the site was gently wiped with Triphala decoction or Haridra Churna mixed with Ghrita to promote healing and prevent infection.
- **Leech management:** The leeches were placed in a mixture of turmeric water for vomiting the ingested blood, then transferred to clean water and stored separately for future use. Reuse of the same leech was strictly avoided for different patients.
- **Observation:** The patient was observed for any allergic reaction, excessive oozing, or discomfort after the session.
- **Follow-up:** The procedure was repeated weekly for a total of **three sittings**, depending on the severity and patient's response. Continuous monitoring was maintained throughout the therapy course.

#### Precautions:<sup>10</sup>

- Use of healthy and disease-free leeches
- Avoidance of Jalaukavacharana in immunocompromised or severely anemic patients
- Proper aseptic precautions and disinfection of the area

- Close observation for signs of infection, ulceration, or hypersensitivity

## REVIEW OF LITERATURE

### Raktarsha

Raktarsha is a subtype of Arsha, characterized primarily by per rectal bleeding along with pain, discomfort, and prolapse of the pile mass. It is considered a Mahagada due to its chronic, tormenting, and relapsing nature. According to Ayurvedic texts, Raktarsha occurs due to vitiation of Rakta Dhatu in association with aggravated Doshas, predominantly Pitta and Rakta. The pathogenesis involves Mandagni, accumulation of Ama, and vitiation of Doshas, especially in the Guda Pradesh, leading to formation of vascular swellings that rupture and bleed. The disease can be either Sahaja (congenital) or Janmottarakala (acquired), and is precipitated by faulty dietary and lifestyle habits like Atipravritta Vegadharana, Abhojana, Atibhojana, and Guru Snigdha Ahara.<sup>11</sup>

### Vyutpatti

The term Arsha is derived from the root "Rish", which means to injure, torment, or afflict. Hence, Arsha refers to a condition that afflicts the body like an enemy. In Raktarsha, the term specifically indicates a form of Arsha where Rakta Srava (bleeding) is a prominent symptom, signifying Raktadushti along with vascular involvement. According to Sanskrit Vyakarana, the suffix "Asun" indicates a disease condition, and hence Raktarsha implies a pathological condition of Rakta in the form of Arsha.<sup>12</sup>

### Nirukti

Nirukti or etymological derivation of Raktarsha explains its causation and pathophysiology in terms of Dosha Dushya Sammurchana. The Dosha involved are mainly Pitta and Vata, which vitiate the Rakta Dhatu, and lead to the development of engorged vascular structures in the Guda. These are termed Arsha because they behave like an Arati Kāraka (causer of suffering) to the patient. The excessive vitiation of Rakta Dhatu and vascular tissues leads to rupture and bleeding, forming the basis of the Raktarsha pathology.<sup>13</sup>

### Classification According to Ayurvedic Classics

Acharya Sushruta classifies Arsha based on different parameters—origin (Sahaja or Janmottarakala), predominance of Doshas (Vataja, Pittaja, Kaphaja, Sannipataja, Raktaja), curability (Sadhya, Krichrasadhya, Asadhya), and treatment modality required (Bheshaja Sadhya, Kshara Sadhya, Agni Sadhya, Shashtra Sadhya). Raktarsha is categorized under Raktaja Arsha, and is usually Krichrasadhya or Asadhya depending on chronicity, site, and severity. Acharya Charaka emphasizes the role of Agni Dushti and Rakta Dusti as the chief factors, while Ashtanga Hridaya integrates the classification into Bahya, Abhyantara, Sthir, Chala, and Pratyaksha categories.<sup>14</sup>

### Management of Arshas

The management of Arsha follows a sequential approach: Bheshaja Chikitsa (internal medications), Kshara Karma (alkaline cauterization), Agni Karma (thermal cauterization), and Shashtra Karma (surgical intervention), as elaborated by Acharya Sushruta. For Raktarsha, Raktamokshana through Jalaukavacharana is specifically mentioned as a minimally invasive procedure that directly addresses Raktadushti. Internal medications like Arshoghna Vati, Abhayarishta, Kutaj Ghanavati, Nimba Churna, and Triphala Guggulu are frequently used. Kshara Sutra, Kshara Lepa, and Yogaratnakara's Arshokta Kalpas are also indicated. Supportive therapies include Anulomana, Virechana, Parisheka, and Sitz bath with decoctions of Triphala, Nimba, and Daruharidra.<sup>15</sup>

### Preventive Measures

Prevention of Raktarsha primarily lies in the correction of lifestyle and dietary habits. A pathya Ahara Vihara regimen plays a crucial role in prevention and relapse avoidance. Regular intake of Laghu, Snigdha, and Anulomaka Ahara, avoidance of Guru, Ruksha, Abhishyandi foods, and timely meals are advocated. Lifestyle modifications like regular physical activity, avoidance of excessive sitting, suppression of natural urges, and stress management are emphasized. Maintaining bowel regularity and adequate hydration are critical preventive strategies. Preventive Raktamokshana in high-risk individuals is also described by Acharya Sushruta as part of Dinacharya and Ritu Shodhana for selected patients.<sup>16</sup>

## RESULT AND FINDINGS

- Significant reduction in per rectal bleeding was observed in the majority of patients after 2–3 sittings of Jalaukavacharana.
- Pain during defecation reduced considerably as assessed by the Visual Analogue Scale (VAS), with most patients reporting mild to no pain post-therapy.
- Heaviness and itching in the anal region were alleviated within the first two sittings.
- Hemoglobin levels showed a mild but steady improvement in patients with moderate anemia due to reduction in ongoing blood loss.
- No significant adverse effects or complications were reported during or after therapy.
- Overall clinical improvement and patient satisfaction were high, with minimal recurrence noted during the 4-week follow-up period.

## DISCUSSION

Raktarsha is a chronic, relapsing anorectal disorder with cardinal features like per rectal bleeding, pain, and discomfort, which severely affect the quality of life. According to Ayurvedic principles, it results from the vitiation of Rakta and Pitta doshas along with Vata, leading to Arsha formation in the Guda Pradesh. The condition aligns with internal hemorrhoids of modern proctology. In this clinical trial, Jalaukavacharana (leech therapy) was adopted as a primary treatment modality based on the classical indication of Raktamokshana in Raktaja Vikara.<sup>17</sup>

Jalaukavacharana is a non-invasive, localized form of Raktamokshana advocated for delicate areas and Pitta-Rakta predominant disorders. The therapeutic action is explained on the basis of removal of vitiated blood (Dushita Rakta Nirharana) along with local Shothahara (anti-inflammatory), Vedanasthapana (analgesic), and Stambhana (styptic) effects. The anti-coagulant and anti-inflammatory peptides secreted by leeches such as hirudin, calin, and destabilase support these actions physiologically, improving local circulation and reducing inflammation and pain.<sup>18</sup>

In this study, patients showed marked clinical improvement after 2 to 3 sittings of Jalaukavacharana. There was a progressive reduction in bleeding per rectum, pain during defecation, and heaviness in the anal region. Subjective parameters such as discomfort and itching were significantly relieved, indicating the potential of this therapy in resolving the inflammatory pathology and congestion in hemorrhoidal tissues. Objective findings like improvement in hemoglobin level further support the efficacy of the therapy in managing chronic blood loss.<sup>19</sup>

Classical texts including Sushruta Samhita emphasize Raktamokshana as a key line of management for Raktaja Arsha, especially through Jalaukavacharana. This study revalidates the ancient wisdom through clinical evidence, confirming that the procedure not only arrests bleeding but also pacifies Rakta and Pitta doshas. Its non-invasive nature, low cost, minimal discomfort, and reduced risk of postoperative complications make it a highly practical option in the outpatient setting.<sup>20</sup>

This study highlights the importance of integrating evidence-based Ayurvedic practices like Jalaukavacharana into routine clinical care for anorectal disorders. With growing interest in non-surgical and holistic therapies, Jalaukavacharana offers a safe and effective alternative to conventional hemorrhoid treatments. However, further large-scale randomized controlled trials and biochemical evaluations are warranted to establish standard protocols and strengthen its scientific acceptance globally.<sup>21</sup>

## CONCLUSION

The present clinical study reaffirms that Jalaukavacharana is a safe, effective, and minimally invasive therapeutic approach in the management of Raktarsha (bleeding piles). Rooted in classical Ayurvedic principles and supported by modern pharmacological insights, this procedure offers significant relief from bleeding, pain, and associated discomfort without surgical trauma or complications. Its local Raktamokshana, anti-inflammatory, and analgesic actions contribute to rapid symptomatic relief and improved quality of life.

The therapy also minimizes recurrence and enhances patient compliance, making it a valuable integrative modality in contemporary proctological care.

**Conflict of interest –nil**

**Source of support –none**

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