

An Evidence-Based Case Study on the Successful Non-Surgical Treatment of Bilateral Varicocele

Dr. Shubham Nargave¹, Dr. Nripendra Mishra², Dr. Rachana Patidar³, Dr. Anurag Pandey^{4*}

^{1,2,3}PG Scholar, Department of Panchakarma, Govt. Dhanwantari Ayurvedic College and Hospital, Ujjain, MP, India

²Professor - In charge and HOD, Department of Panchakarma, Govt. Dhanwantari Ayurvedic College and Hospital, Ujjain, MP, India

⁴Assistant Professor, Department of Vikriti Vigyan, Faculty of Ayurveda, Institute of Medical Sciences, Banaras Hindu University, Varanasi

***Corresponding Author:**

Dr Anurag Pandey

Email ID: dr.anubhu@gmail.com

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ABSTRACT

Varicocele is characterized by abnormal dilatation and tortuosity of the veins within the pampiniform plexus of the spermatic cord. It is a relatively common clinical condition associated with scrotal pain, swelling, testicular atrophy, and infertility. Although classical Ayurvedic texts do not describe "varicocele" directly, its presentation can be closely correlated with *Siraja Granthi* of *Vrushana Kosha* (scrotal venous swelling). According to Ayurvedic principles, the vitiated *Vata Dosha* compresses (*Sampeedyā*), contracts (*Samkochya*), and dries (*Vishoshya*) the venous channels, resulting in the formation of *Granthi* (vascular swelling or cyst-like structure). In modern medicine, surgical intervention is often considered the primary mode of treatment. However, Ayurveda offers promising non-surgical alternatives. This case study presents the management of a 30-year-old male patient who attended the Panchakarma OPD of Govt. Dhanwantari Ayurvedic Hospital, Ujjain, with complaints of scrotal pain and swelling persisting for five months.

The patient was treated with *Jalaukavacharana* (leech therapy), *Shamana Chikitsa* (palliative therapy), and *Patra Bandhana* (herbal bandaging). A total of six sittings of *Jalaukavacharana* were administered. Significant reduction in symptoms, particularly pain and swelling, was observed after the second session itself.

This case highlights that therapeutic effect of *Jalaukavacharana* is a safe, cost-effective, and highly beneficial therapy for the management of varicocele. It provides an effective non-surgical option within the scope of Ayurvedic clinical practice.

Keywords: Varicocele, Siraja Granthi, Jalaukavacharana, Non-surgical management, Ayurveda, Scrotal swelling.

1. INTRODUCTION

Varicocele is the dilated and tortuous veins of the pampiniform plexus. It lies posterior and above the testis. They can be totally missed if examination is done in the supine position. The varicocele prevalence in the general population is estimated to be. It is the most common surgically correctable cause of subfertility in males.^[1] 15% - 20%, however the prevalence of 40% among the men seen with primary infertility and 81% among men with secondary infertility.^[2] A spermatic cord holds up each testicle. The cords also contain the veins, arteries and nerves that support this gland. In healthy veins inside the scrotum, one-way valves move the blood from the testicles to the scrotum and then they send it back to the heart.^[3] In more than 90% of cases the varicocele is seen on the left side. Varicocele increases temperature in the scrotum and this seriously depresses spermatogenesis.^[4] A weak person who undertakes excessive exercise gets his network of veins affected due to Vayu which compresses (*Sampeedyā*), squeezes (*Samkochya*) and dries it up (*Vishoshya*) produces *Granthi* quickly which is raised and circular.^[5] *Raktamokshana* is the main line of treatment in the management of *Siraj granthi*, in which *Jalaukavacharana* is a cost-effective, easy and safe method of treatment. *Jalauka* sucks vitiated blood, reduces the local temperature and the enzymes and chemical compounds of leech help in blood circulation and reduce the congestion.^[6]

2. CASE REPORT

Name of Patient: [Redacted]

Age/Sex: 30 years / Male

OPD: Department of Panchakarma Room No - 22

Hospital: Government Dhanwantari Ayurvedic Hospital, Ujjain, India

Date of 1st Visit: 10-01-2025

Chief Complaints:

- Pain and swelling in the scrotum in the last 5 months.
- Discomfort and aggravation of scrotal pain while walking.
- Chronic constipation in the last 4 months.

History of Present illness:

- Onset: Gradual onset.
- Duration: in the past 5 months
- Site of pain: Scrotum region.
- Pain: Dull testicular pain or aching in your scrotum, which often gets better when you lie down.

Past history: Nil

Family History: Nil

Personal history:

- Diet – Normal diet (vegetarian)
- Appetite – Loss of appetite
- Bowel habit – bowel not proper clear (Hard stools and passing 2-3 times/day.)
- Micturition – Normal
- Sleep – adequate (6-7 hours night sleep)
- Addiction – Alcohol (2-3 times per week)
Smoking (1-3cigarettes per day)
- Digestion
 - Abhyaharan Shakti - Normal
 - Jaran Shakti - Poor
- Occupational History –
 - Shopkeeper by profession.
 - Work involves standing for more than 6 hours daily.

General Examination

- Body built – Normal shape and size
- Decubitus - Nil
- Pallor - Nil
- Icterus - Nil
- Cyanosis - Cyanosis is not present
- Clubbing – No Cubbing
- Lymphadenopathy - Nil
- Oedema - Nil
- JVP - Normal

- BP – 124/86mmhg
- Pulse – 82/min.

Systemic Examination

Genito-Urinary System Examination

- On Inspection - see the dilated veins in bilateral scrotal region.
- On palpation –
 - Shape - The dilated veins typically feel like a ‘bag of worms’.
 - Tenderness - Tenderness in bilateral scrotal root.

Diagnosis:

- **Subjective parameters:** Testicular pain and Testicular swelling
- **Objective parameters:** USG Scrotum

On Screening and Examination, Subjective findings were noted and advised USG Scrotum. The USG study revealed Bilateral **Grade 4 Varicocele**.

- **Routing Investigation for Jalaukavacharana:** Hb%-14.2gm%, CT & BT are also Normal, ESR-12mm 1sthr, RBS-128gm/dl, HIV & HbsAg – Non reactive

3. TREATMENT

- 6 sitting of Jaloukavacharan with an interval of 10 days.
- Upnaha of Eranda Patra with Erand tail once in the morning for 60 days.
- 2-month shaman chikitsa.

1st follow up

| S. N | Drug | Dose |
|------|----------------------------------|--------------------|
| 1 | Vridhivadika Vati ⁽⁷⁾ | 2bd |
| 2 | Punarnvasav ⁽⁸⁾ | 20ml |
| 3 | Kaishor Guggulu ⁽⁹⁾ | 2bd |
| 4 | Haritaki Choorna | 6gm HS with Doogdh |

2nd Follow up

Same Treatment was given for the next 10 days.

3rd Follow up- Patient also complaints weight gain in the last 2 month

| S.N. | Drug | Dose | |
|------|---|---|----|
| 1 | Vridhivadika Vati | 2bd | |
| 2 | Punarnvasav | 20ml | |
| 3 | Kaishor Guggulu | 2bd | |
| 4 | Haritaki Choorna | 6gm HS with Doogdh | |
| 5 | Punarnavadi Mandoor ⁽¹⁰⁾ Shankh Bhasma ⁽¹¹⁾ Shuddha Tankan ⁽¹²⁾ MahavatvidhvanshakRasa ⁽¹³⁾ Punarnava Choorna ⁽¹⁴⁾ | 250mg 125mg 250mg 250mg 2gm | BD |
| 6 | Medpachak Vati | 1BD | |

4th Follow up

Same Treatment was given for the next 10 days.

5th Follow up

In the 5th follow up, the patient also complains of pain and burning sensation while passing urine.

| S.N. | Drug | Dose | |
|------|---|--|----|
| 1 | Vriddhivadika Vati | 2bd | |
| 2 | Punarnvasav | 20ml | |
| 3 | GokshooradiGuggulu ⁽¹⁵⁾ | 2bd | |
| 4 | Haritaki Choorna ⁽¹⁶⁾ | 6gm HS with Doogdh | |
| 5 | Punarnavadi Mandoor Shweta Parpati ⁽¹⁷⁾ Shuddha Tankan Mahavatvidhvanshak Rasa Punarnava Choorna Gokshoor Choorna ⁽¹⁸⁾ | 250mg 250mg 250mg 250mg 1gm 2gm | BD |
| 6 | Medpachak Vati ⁽¹⁹⁾ | 1BD | |
| 7 | Chandraprabha Vati ⁽²⁰⁾ | 2BD | |

6thFollow up

Same Treatment was given for the next 10 days.

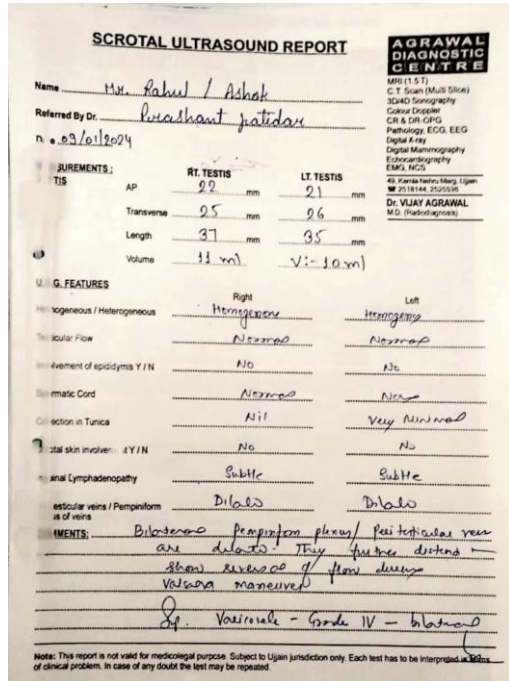
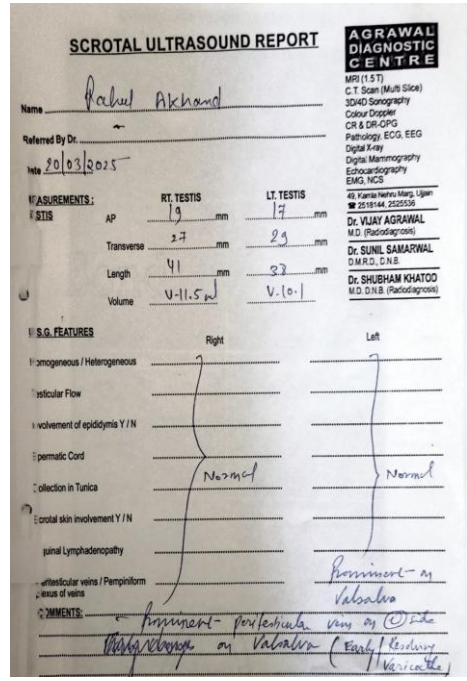
Assessment criteria

| Follow up / Sitting of Jaloukavacharan | 1 st | 2 nd | 3 rd | 4 th | 5 th | 6 th |
|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Blood let out | 5ml | 5ml | 6ml | 4ml | 3ml | 5ml |
| Pain* | VAS-2 | VAS-2 | VAS-1 | VAS-1 | VAS-0 | VAS-0 |
| Varicocele** | Grade-3 | Grade-2 | Grade-2 | Grade-1 | Grade-1 | Grade-0 |
| <p>*Visual Analogue scale:</p> <ul style="list-style-type: none"> • 3 -Discomforting Pain • 2 - Moderate Pain • 1 - Mild Pain • 0 - Absent <p>**Varicocele grading:</p> <ul style="list-style-type: none"> • Grade 0 – seen on ultrasound but not visible orpalpable on physical examination • Grade 1 – not visible but palpable with performance of Valsalva maneuver • Grade 2 – Not visible but palpable without Valsalva maneuver • Grade 3 – Visible on Examination ^[21] • Grade 4 –Very large varicositiesbecome visible immediately when the patient stands up; the varicosities are hypertensive and subcutaneous varices are present too. | | | | | | |

ObservationAnd Results:

After the treatment the patient experiences reduction of pain and swelling in the scrotum region. The cord like structure also disappears.After 2-monthtreatment (6 sitting Jalaukavacharan and shaman chikitsa)the USG report changedfrom grade 4 varicocele to Grade 0 varicocele.

BT & AT Comparison:

| Parameters | Before Treatment | After Treatment |
|---------------------|--|---|
| Testicular Pain | Present | Absent |
| Testicular Swelling | Present | Absent |
| USG Scrotum | Bilateral Grade 4 Varicocele | Only left Testicular vein are early prominent |
| Report |  |  |

4. DISCUSSION

Jalaukavacharana (leech therapy) is highly beneficial in managing Dooshitha Rakta Vikara—disorders involving vitiated blood. This therapy involves the application of medicinal leeches to specific areas of the body, where they draw out impure blood, thereby providing relief.

According to Acharya Sushruta, Jalaukavacharana is considered an Anushastra Karma (a procedure performed without surgical instruments), making it a safe, minimally invasive, and less complicated technique.

The therapeutic efficacy of leech therapy lies in the bioactive constituents present in leech saliva, including:

- Hirudin: A potent anticoagulant that inhibits thrombin, preventing blood clotting.
- Bdelins: Exhibit anti-inflammatory properties by inhibiting enzymes like trypsin and plasmin.
- Hyaluronidase: Enhances tissue permeability by reducing interstitial viscosity, facilitating better drainage and circulation.
- Leech saliva also possesses antibiotic properties, aiding in infection control.

Overall, Jalaukavacharana is a valuable modality in Ayurvedic treatment, especially for blood-related disorders, offering a holistic and natural approach to healing.

Erand Patra Bandhan refers to the binding or tying of castor leaves over a specific body part to relieve pain, swelling, or

inflammation. Eranda leaves possess Ushna (hot) and Tikshna (penetrative) qualities. Their application helps in:

- Reducing localized stiffness and swelling
- Improving circulation
- Alleviating Vata and Kapha dosha aggravation

Shaman Chikitsa –

1. Vriddhi vadika vati:

- Vata-Kapha Shamana (Balances aggravated Vata and Kapha)
- Lekhana (Scraping action, helps reduce abnormal growths or swelling)
- Shothahara (Anti-inflammatory)
- Vedana Sthapana (Pain relief)

2. Punarnavaasav:

- Promotes diuresis, reducing swelling
- Improves liver function and clears toxins
- Aids in urinary tract health
- Acts as a mild laxative and digestive
- Supports heart function by reducing fluid overload

3. Kaishor Guggulu:

- Rakta Shodhana (Blood purification)
- Amapachana (Digestion of toxins)
- Shothahara (Anti-inflammatory)
- Jantughna (Antimicrobial)

4. Haritaki Choorna: One teaspoon was given lukewarm water for *Anuloman*.

5. Yoga:

- **Punarnava mandoor:** Its detoxifying, Diuretic and anti-inflammatory properties.
 - **Shankh Bhasma:** Its antacid, digestive and absorbent properties.
 - **Shuddha Tankan:** Its expectorant, antiseptic, alkaline, mild laxative properties.
 - **Mahavatvidhvansak Rasa:** Primarily used to treat neurological and musculoskeletal pain.
 - **Shweta Parpati:** for urinary and metabolic disorders (like urinary stones, Diabetes and high urea creatinine level etc.)
 - **Punarnava Choorna:** It is diuretic, anti-inflammatory and detoxifying in nature.
 - **Gokshoor Choorna:** Mainly Diuretic, anti-inflammatory, rejuvenative (rasayana), lithotriptic (stone breaking) properties.
6. **Chandraprabha Vati:** Uses especially in Urinary, Anti-inflammatory, Antimicrobial, Reproductive and metabolic disorders.
7. **Medpachak Vati:** Helps in breaking down stored fat (Medo Dhatu), reduces **Ama** (toxic undigested residue), enhances **Agni**.
8. **Gokshuradi Guggulu:** Its primarily known for its benefits in supporting urinary tract health, kidney function and reproductive health.

5. CONCLUSION

This case report provides supportive evidence that with appropriate and systematic Ayurvedic treatment modalities, significant relief from pain and swelling associated with varicocele can be achieved without surgical intervention. The integrated approach using *Jalaukavacharana* (leech therapy), *Eranda Patra Bandhana* (castor leaf bandaging), and internal

medications proved to be effective in resolving the symptoms and restoring patient comfort.

The therapy was safe, non-invasive, and cost-effective, making it accessible and affordable for patients. Notably, *Jalaukavacharana* may be considered a form of microsurgical intervention within the Ayurvedic paradigm, offering targeted and localized therapeutic effects. This case underscores the potential of Ayurvedic protocols as viable non-surgical alternatives in the management of varicocele.

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