



## A CLINICAL STUDY ON JALAUKAAVACHARANA, RASNADI PRADEHA AND GORAKHMUNDI CHURANA IN THE MANAGEMENT OF VATARAKTA W.S.R. TO GOUTY ARTHRITIS

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### ABSTRACT

*Vatarakta* is one of the *Rakta Pradoshaja Vikara*. The disease produced by the vitiation of both *Vata* and *Rakta* is termed *Vatarakta*. It can be compared with Gout and other crystal arthropathies. *Raktamokshana* means letting of blood, which mainly indicates a disease state, especially when there is a *Rakta Dushti* and during physiological function. *Acharya* has recommended *Raktamokshana* in *Vatarakta*. By *Raktamokshana*, vitiated blood is expelled, which helps cure diseases and their symptoms. *Raktamokshana* is of two types *Shastrakruta* and *Ashastrakruta*. *Jalaukavcharana* comes under *Ashastrakruta Karma*. It is observed that it helps rapidly reduce inflammation and pain. In this study, a patient was diagnosed with *Vatarakta*, and its classic symptoms were treated with *Jalaukavcharana*.

**Keywords:** *Vatarakta*, Gouty Arthritis, *Jalaukaavacharana*, *Gorakhmundi Churna Rasnadi Pradeha*.

## INTRODUCTION

Ayurveda is a traditional medical science emphasising health maintenance over illness treatment. It is a treasure trove of findings and data obtained during an arduous, invasive study process. For many, it is more than just a healthcare system—a way of life or a culture. With the astounding premise that man is a miniature representation of the universe, science has developed its unique protocol to produce a happy and healthy society. Schedules such as a *Dincharya*, *Ritucharya*, and *Ahara Vidhi Vidhan* are challenging to adhere to due to Western civilisation. Because of this lifestyle, there are an increasing number of *Mansika* (mental) and *Sharirik* (physical) *Vyadhi* (diseases).

Fast food consumption and erratic schedules are prevalent in our everyday way of life, resulting in "*Virudadha Aharajanya Vyadhi*." As a result, a large population is affected by many diseases.

"*Vata Dushtam Raktam Yatra Roga Visheshah*" is a disease characterised by the abnormality of *Raktadhatu* due to the morbidity of *Vata Dosa*. It is called *Vatarakta*. *Nidana*, such as *Katu*, *Amla*, *Ushna*, *Vidahi Aahar ras*, *Gaja*, and *Ushtra Yaana*, are mentioned.

There are two stages: *Utthana* and *Gambheera*. *Ruja* generated by *Gambheera Vatarakta* is comparable to *Aakura Visha's* and primarily affects *Asthidhatu*. Most dietary practices (*Virrudhahara*), social structures, lifestyles, and environments have changed. One of the consequences of these changes is also the incidence of *Vatarakta*.

Based on the indications and symptoms, this *Vatarakta* may be connected to Gouty Arthritis in contemporary medicine. 2.0 to 2.6 people per 1000 are reported to be affected by this gouty arthritis, with the majority of those affected being between the ages of 25 and 50 (API). It causes job impairment and dramatically favours the joints. It disables people by limiting their regular activities. In any therapeutic context, minor medical care is available for this problem. NSAIDs and uricosuric acid are two common drugs used to treat gouty arthritis symptoms. However, they have a lot of adverse effects.

Every Ayurvedic treatment is founded on the principles of *Tridosha Siddhanta* and *Srothoshodhana*

*Chikitsa*. One of the main ways that *Raktamokshana*, as explained in the *Charaka* and *Sushruta Samhitas*, reduces pain and swelling in *Vatarakta* is through *Jalaukaavacharana*.

*Acharya Charaka* says that *Rasnadi pradeha* is suitable for *Vatarakta*. According to *Chakradutta*, the finest medication recommended for treating *Vatarakta* is *gorakhmundi churana*. As a result, *Jalaukaavacharana*, *Rasnadi Pradeha*, and *Gorakhmundi Churana* share these qualities.

In contemporary medicine, medications help reduce pain and its symptoms, but they can have side effects. Therefore, it is best to use them sparingly. To determine the effectiveness of the treatment, the current clinical work, "To evaluate a clinical study on *Jalaukaavacharana*, *Rasnadi Pradeha*, and *Gorakhmundi Churana* in the management of *Vatarakta* w.s.r to Gouty Arthritis," has been conducted.

**Aim and Objective-** This present study has the following aims and objectives.

- To study the etiopathogenesis of *Vatarakta* (Gouty Arthritis).
- To evaluate the efficacy of *Jalaukaavacharana* and *Gorakhmundi Churana* in *Vatarakta*.
- To evaluate the efficacy of *Rasnadi pradeha* and *Gorakhmundi Churana* in *Vatarakta*.
- To compare the clinical efficacy of *Jalaukaavacharana*, *Gorakhmundi Churana* and *Rasnadi pradeha* in managing *Vatarakta* (Gouty Arthritis).

### **Materials & Methods**

**Material and Methods:** The study topic and the case proforma were submitted to the university's Institutional Ethical Committee (IEC/ACA/2021/5126-5274). The committee clarified the significance of the study's aims and objectives, methodology, and probable outcome, and ethical clearance was obtained for its conduct. The trial has been registered in CTRI with reference no—CTRI/2022/10/046285.

**1. SAMPLE SIZE** –A total of 30 patients of *Vatarakta* were selected randomly for the study, ranging in age from 16 to 65, regardless of sex, religion, or any other factors.

**2. SOURCE OF DATA** –Patients were selected from the M.M.M. Govt. Ayurved College Campus Hospital, Ambamata and the Moti Chohatta Govt. Ayurved Hospital, Hathi Pole, Udaipur’s OPD and IPD.

Special camps were held from time to time.

**3. INFORMED CONSENT** –Before beginning the clinical trial, the participants will be given a thorough clarification of the study, and then their signed, written informed consent will be obtained.

**4. SELECTION CRITERIA –**

**Inclusion Criteria:**

- Patients willing to participate in the trial.
- Patients who have the classical signs and symptoms of *Vatarakta*.
- The patient of *Vatarakta* has serum uric acid, which is more than the average value in both genders.
- Patient in the age group between 16 – 65 years of either sex.

**Exclusion Criteria:**

- Patients under the age of 16 and above 65 years of age.

- Any other inflammatory joint disorder like RA, tubercular arthritis, etc.
- Patients suffering from chronic respiratory, cardiac, hepatic, and hormonal diseases.
- Patients having malignant disorders.
- Any other patient considered unfit for inclusion in the criteria.

**5. LAB INVESTIGATION –**

- Hematological Test- Hb%, TLC, DLC, ESR, CT, BT, Blood sugar (RBS)
- Uric Acid, R.A. factor

**6. Radiological investigation:** Digital X-ray of affected limbs if needed.

**7. Clinical criteria (Parameters)**

**A) Subjective**

- 1) *Sandhishool* (Joint pain) -
- 2) *Sandhi shopha* (Joint Swelling)
- 3) *Sandhi daha* (Burning sensation at joints)
- 4) *Sparsha Asahatava* (Tenderness)
- 5) *Sandhi Vikriti* (Joint Deformity)

**B) Objective Criteria**

- 1) Serum uric acid

**STUDY DESIGN**

**Allocation-** In an open-label clinical trial, the patients will be randomly divided into two groups using a computer-generated randomisation sampling method.

	<b>GROUP A (15 patients)</b>	<b>GROUP B (15 patients)</b>
<b>Drug</b>	<i>Gorakhmundi Churna</i> twice daily with 6gm <i>Ghrita</i> and 12 gm <i>Madhu</i> .	<i>Gorakhmundi Churna</i> twice daily with 6gm <i>Ghrita</i> and 12 gm <i>Madhu</i> .
<b>Dose</b>	6 gm	6 gm
<b>Anupana</b>	<i>Guduchi Kwatha</i> .	<i>Guduchi Kwatha</i> .
<b>Procedure</b>	<i>Jalaukavacharana</i> up to 4 weeks duration four sitting at seven days interval	<i>Rasnadi pradeha</i> daily local application
<b>Period</b>	28 days	28 days

**Observation and Results**

- Observation shows that the maximum number of patients in the clinical study were in the age group 41-50, i.e. 10(33.33%), followed by 9(30%) in the 31-40 age group, 8(26.66 %) in the 51-60 age group, and 3(10 %) in the 21-30 age group. It

clearly shows that the Age group 31-50 has the highest incidence rate.

- In this clinical study, observation shows that a maximum number of patients were male, i.e., 19(63.33%) and 11(36.66%) were female.

- In the clinical study, observation shows that a maximum number of patients was Hindu, i.e., 23(76.66%), only 07(23.33%) belonged to the Muslim community.
- In the clinical study, Data shows that most patients were servicemen 7(23.33%) and housewives 7(23.33 %), then pvt job 6(20 %), businessmen 5(16.66%) and labourers 5(16.66 %).
- Observation shows that maximum number of patients were 18(60%) belongs to Urban Habitat, followed by 12(40%) patients belong to Rural Habitat.
- Observation shows that maximum number of patients were 17(56.66%) belongs middle class, followed by 8(26.66%) belong to upper. The poor class belongs to 5(16.33%).
- The data shows that the maximum number of patients was graduates, i.e. 9(30%), followed by 8(26.66%) secondary, 6(20%) patients belonged to a graduate category, 4(13.33%) patients were postgraduate and 3(10%) were illiterate.
- The table shows that 43.33% of patients had a positive family history, while 56.66% of patients had no significant family history found.
- The table shows that 43.33% of patients had a positive family history, while 56.66% had no significant family history.
- Observation shows that the maximum number of patients was 17(56.66%) who belonged to a mixed diet, followed by 13(43.33%) who were vegetarian.
- Observation shows that the maximum number of patients was 17(56.66%) who belonged to a mixed diet, followed by 13(43.33%) who were vegetarian.
- The above table shows that 11(36.66%) patients were of a sedentary nature of work, 9(30%) were of a sitting nature of work, 7(23.33%) were of moderate work in nature and 3(10%) patients were of strenuous nature of work.
- Among the patients, 50% had dietary risk factors, 43.33% had obesity, 43.33% had alcohol addiction risk factors, and 16.66% of patients were taking medication for DM and hypertension.
- *Viruddhashana* was reported in a maximum no of patients 13(43.33%), *Vishamashana* was reported in 09(30%), *Adhyashana* was reported in 05(16.66%) and *Samshana* was reported in 3(10%) patients.
- *Amla, Lavana, Katu Ras Ati Sevan Aharaj Nidana* were reported in a maximum no of patients 13(43.33%), 12(40%) of patients were *Vidahi Bhojan Aharaj Nidana* and 11(36.66%) patients were *Viruddhasana Aharaja Nidana*.

#### PERCENTAGE OF DIFFERENCE AFTER TREATMENT

S. No.	Variable	% Diff. in Group A	% Diff. In Group B
1	<i>Sandhishool</i> (Pain in joint)	77.77	70.38
2	<i>Sandhishotha</i> (Oedema)	75	67.96
3	<i>Sandhi Daha</i> (Burning sensations in joints)	73.85	62.50
4	<i>Sparsha Asahatava</i> (Tenderness)	80.45	73.90
5	<i>Sandhi Vikriti</i> (Joint deformity)	35.70	30.76
6	Uric acid	40	33.33
Total % of Relief		67.18	60.76

#### DISCUSSION

**Probable mode of action of Gorakhmundi Churna:** *Gorakhmundi* (*Sphaeranthus indicus*) is a medicinal herb. It has *Tikta, Katu Rasa; Laghu-Ruksha Guna;*

*Usna Virya* and *Katu Vipaka*. It helps through its anti-inflammatory and diuretic properties. Many studies have shown its potential to reduce uric acid levels in the body. *Gorakhmundi* may decrease the production

of uric acid by inhibiting xanthine oxidase activity, which helps break down purines into urates during digestion.

**Probable mode of action of Rasnadi Pradeha:** *Rasnadi Pradeha* is helpful in cases of both Acute and Chronic Gouty Arthritis because, along with good results in pain, redness, and swelling, it also showed promising results in itching and discolouration.

It was used for local applications. *Rasna* is the best *Vata Shamak* drug; it is *Shohta, Shoola & Vedanahar; Guduchi* is the best drug to cure *Vatarakta*; it is *Tridosha Shamak* and contains Tinosporin whose anti-inflammatory action resembles NSAIDs. *Yastimadhu* is a potent *Shopha & Shohta Nashak* and has good anti-inflammatory & analgesic action when used locally. *Bala & Atibala* are both *Balya, Vatahar,* and *Vatarakta Nashak &* have anti-inflammatory and analgesic properties. Due to the above properties, the selected drug seems effective in *Vatarakta*.

**Probable Mode of Action of Jalaukaavacharana (Leech Therapy):** Leech therapy or *Jalaukavacharana* is an ancient ayurvedic bloodletting technique that has the immense potential to treat inflammatory, ischemic, and infective disease conditions. Its mode of action depends on injecting leech saliva into the patient's tissues during bloodsucking. Leech saliva contains several bioactive constituents, including anti-inflammatory, anticoagulant, anaesthetic, vasodilator, anaesthetic, antibiotic, and antioxidant properties acting through multiple mechanisms in different disease conditions like *Vatarakta*.

These substances might reach deeper tissue zones through the simultaneous activity of a further leech saliva component, hyaluronidase. Second, nociceptive activation contributes to chronic pain. Leech therapy could induce pain relief through anti-nociceptive effects and counter-irritation. However, it is not known to what extent leech bites may induce such mechanisms, and it seems unlikely that reduction of nociceptive input on a single occasion would result in the observed lasting effect. The jaws of the leech pierce the skin so that these potent biologically active substances can penetrate the deeper tissues. Hyaluronidase (spreading factor), an enzyme in leech saliva, further

facilitates the penetration and diffusion of these pharmacologically active substances into the tissues. With the additive effect of hyaluronidase, the antiphlogistic substances in leech saliva can probably penetrate deep enough to exert significant effects on periarticular myofascial structures and perhaps even on intra-articular structures and on inflammatory conditions like *Vatarakta* (gout).

**Discussion on Assessment parameters:**

**Sandhishool (Pain in the joint):** In this study, the improvement in Sandhishool (Pain in the joint) in Group A shows a 77.77% improvement. On the other hand, Group B shows 70.38% improvement, and the 'P' value is < 0.0001. It shows both are statistically highly significant.

**Sandhishotha (Oedema):** In this study, the improvement in Sandhishotha (Oedema) in Group A shows 75% improvement. On the other hand, Group B shows 67.96% improvement, and the 'P' value is < 0.0001. It shows both are statistically highly significant.

**Sandhidaha (burning sensations in joints):** In this study, the improvement in Sandhidaha (burning sensations in joints) in Group A shows 73.85% improvement. On the other hand, Group B shows 62.50% improvement, the 'P' value is < 0.0001. It shows both are statistically highly significant.

**Sparsha Asahatava (tenderness):** In this study, Sparsha Asahatava (tenderness) in Group A shows an improvement of 80.45%. On the other hand, Group B shows 73.90% improvement, and the 'P' value is < 0.0001. It shows both are statistically highly significant.

**Sandhi Vikriti (joint deformity):** In this study, the improvement in Sandhi Vikriti (joint deformity) in Group A shows a 35.70% improvement. On the other hand, Group B shows a 30.71% improvement; in Group A 'The p' value is < 0.05. It shows statistical significance; Group B's 'P' value is >0.05, indicating no importance.

**Effect on serum uric acid:** In this study, the improvement in serum uric acid in Group A was 40%. On the other hand, Group B showed a 33.33% improvement, and the 'P' value is >0.0001 but less than 0.05. Both are statistically significant.

## OVERALL EFFECT OF THE TREATMENT:

The improvement in the symptoms of *Vatarakta* (Gouty Arthritis) is the maximum in Group A with 67.18%, followed by Group B with 60.76%. According to this study, the drug *Gorakhmundi Churna* with *Jalaukaavacharana* from Group A is more effective in the treatment of *Vatarakta* (Gouty Arthritis) than the *Gorakhmundi churna* and *Rasnadi Pradeha* from Group B because of leech therapy is effective in rapidly relieving pain, swelling, tenderness, and burning sensations in gout. Leech reduces *Sandhishool* (pain in joints), *Sandhishotha* (Oedema), *Sparsha Asahatava* (tenderness) and *Sandhidaha* (burning sensations in joints). According to previous work, *Jalaukaavacharana* is an effective treatment for rapidly reducing symptoms of *Vatarakta* associated with deep-seated vitiated Doshas, which present as inflammation of the joints.

## CONCLUSION

- *Vatarakta* is a disease where distinct etiological factors afflict both Vata and Rakta.
- People do not take proper diet and do not follow appropriate dietary rules as described in *Ayurveda* under *Dincharya*, *Ritucharya*, etc. Improper dietary habits such as *Adhyashana*, *Virudhashana*, *Ahitashana*, etc., and use of meat from aquatic and marshy animals, more consumption of fast food, junk food, high protein diet, less tendency to exercise, more vehicle riding, long-term vehicle riding over damaged road have increased the number of *Vatarakta* patient.
- Several factors have been found to influence rates of gout, including age, sex, race, and the season of the year.
- Gout is seen in only one-tenth of the patients with hyperuricemia. The incidence of gout varies in population from 0.2 to 3.5 per 1000, with an overall prevalence of 2 to 26 per 1000. The prevalence of Gout has increased in recent years.
- It is rare in children and premenopausal females, and the peak age of onset in males is between 40 and 60 years.
- The chances of having gout rise with age in men,

with a peak around 50, while in women, gout attacks usually occur after menopause.

- After a thorough analysis of 30 Patients of *Vatarakta* (Gouty Arthritis), who were divided into two groups based on the intervention method, the results were easily compared between the two groups.
- Group A was treated with *Gorakhmundi Churana* with *Jalaukaavacharana*, and Group B was treated with *Gorakhmundi Churana* and *Rasnadi Pradeha*.
- An overall relief of 67.18% was observed in Group A, which *Gorakhmundi Churana* treated with *Jalaukaavacharana*.
- An overall relief of 60.72% was observed in Group B, which *Gorakhmundi Churana* and *Rasnadi Pradeha* treated.
- Maximum relief in Group A can be accredited to the synergistic effect of *Gorakhmundi Churana* with *Jalaukaavacharana*.
- Patients in both Groups did not report any side effects from any intervention.

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