

A CLINICAL STUDY ON THE EFFECT OF *VAITARANA BASTI* AND *PATHYADI CHURNA* IN THE MANAGEMENT OF *AMAVATA* W.S.R RHEUMATOID ARTHRITIS

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ABSTRACT

Background: Rheumatoid Arthritis (RA) is a chronic, progressive autoimmune disorder characterized by symmetrical polyarthritis, inflammation, and eventual joint destruction. In the Ayurvedic paradigm, this clinical presentation is correlated with *Amavata*, a crippling disease entity resulting from the simultaneous vitiation of *Vata Dosha* and the accumulation of *Ama*. **Aims:** To evaluate the effect of *Vaitarana Basti* and *Pathyadi Churna* in the management of *Amavata*. **Materials and Methods:** The study employed a Single Group Open Clinical Trial design of 30 patients, utilizing a comprehensive, combined regimen of *Śodhana* (purification) and *Śamana* (palliative) modalities. Two distinct categories of inferential statistical tests were utilized based on the nature of the data collected Wilcoxon Signed-Rank Test for the subjective Ayurvedic parameters and Paired Sample 't'-Test for the

objective biophysical parameters. **Results:** On an individual basis, patients have alleviated the cardinal sign and symptoms of *Amavata*.

INTRODUCTION

Despite access to technological advancements promising unparalleled improvement in the quality of life and comfort, humanity continues to suffer from various disorders. *Amavata* is a major disorder that gradually cripples the individual, making them incapable of leading an independent life. The term *Amavata* is derived from two words—*Ama* and *Vata*.^[1] *Ama*

(undigested or toxic material present in body fluid) which circulates in the body with vitiated *Vata* and gets located in the joints causing pain, stiffness, and swelling over the joints. It can lead to the temporary or permanent disability of joints and it hampers normal routine capacity and lasts for a chronic period.

Amavata can be compared with Rheumatoid arthritis which is a systemic chronic inflammatory joint disorder which affect predominantly to synovial joints. Cardiac involvement, symmetrical involvement of joints along with pain, stiffness and swelling and many systemic complications resembles the disease *Amavata*. According to the American College of Rheumatology, RA is the most common form of autoimmune arthritis. Around 1.3 million people in the United States have RA, representing 0.6 to 1% of the population. As per a 2021 news report, 1.3 crore people in India suffer from rheumatoid arthritis.^[2] It exhibits a strong sexual dimorphism, with a female-to-male ratio of 3:1, and typically manifests during the peak productive years (ages 30–50).^[3]

Drugs are available to ameliorate the symptoms due to inflammation, in the form of Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) and the long-term suppression is achieved by the Disease-Modifying Ant Rheumatic Drugs (DMARDs). However, majorly NSAIDs have gastrointestinal side effects, whereas DMARDs have marrow, renal, and hepatic suppression. Treatment for *Amavata* is not mentioned in *Brihata Trayi* but it is firstly mentioned as a separate chapter in *Madhava Nidana*. It is also mentioned in *Bhavprakasha*, *BhaishajyaRatnavali* and *Chakradatta*. In Ayurvedic classical texts we found that *Kapha* is dominant in *Prameha* and *Medoroga* and *Vata Shamaka* and *Kapha Shamaka Chikitsa* should be done in *Amavata*.^[4] *Acharya Chakradatta* mentioned that *Chikitsa* of *Amavata* includes *Langhana*, *Swedana*, *Tikta Katu*, and *Deepana* drugs, *Virechana*, *Snehapana*, and *Basti* including *Saindhavadi Taila Anuvasana Basti* and *Kshara Basti*.^[5] As *Ama* and *Vata* are the main Causitive factors of the disease ,*Chikitsa* which helps in *Ama Pachana* and *Vata Anulomana* will be helpful in *Amavata*. Here a kind of *Kshara Basti*, *Vaitarana Basti* is was selected for thee purpose of *Shodhana* and *Pathyadi Churna* helpful in *Ama Pachana* and *Srotosudhhi* was selected as *Shamanaa Aushadhi*. This clinical study was an attempt made to evaluate the effect of *Vaitarana Basti* and *Pathyadi Churna* in the management of *Amavata*.

AIM

A clinical Study on the effect of *Vaitarana Basti* and *Pathyadi Churna* in the management of *Amavata* w.s.r rheumatoid arthritis.

OBJECTIVES

- To study the concept of *Ama* and *Vata* properly.
- To raise the knowledge of *Aamvata*, with the help of *Panchkarma Chikitsa*.
- To study the *Samprapti* and *Nidana* of *Amavata* and also the concepts, Pathogenesis etc. of Rheumatoid arthritis according to modern science
- To access the result of *Vaitrana Basti* and *Pathyadi Churna* in *Amavata* patients.
- To study the treatment changes in *Amavata* after *Chikitsa*.

MATERIALS AND METHODS

Source of collection of Data

Screening, selection and registration of 30 patients randomly from OPD and IPD *Panchkarma* Department, GACH Patna, based on inclusion and exclusion criteria. This Clinical trial was started after registration in CTRI, having registration no CTRI/2025/05/086197 and was approved by Institutional Ethics Committee, wide Memo. No.07, dated 03/01/2025.

Materials used for *Vaitarana Basti*(~300 ml) & *Pathyadi churna*

Basti Ingredients

- *Guda*(Jaggery)-1 *Sukti*(24 g)
- *Saidhava Lavana*(Rock Salt)-1 *Karsha*(12 g)
- *Tila Taila*(sesame oil)-1.5 *Pala*(~60 ml)
- *Chincha*(*Tamarindus indica*) paste-1 *Pala*(48 g)
- *Gomutra*(Cow urine)-1 *Kudava*(~200 ml)

Pathyadi Churna ingredients

It includes

Harītakī (pericarp),

Śuṅṭhī (rhizome) and

Ajamodā (seeds) in equal ratio 1:1:1

Criteria for Selection of Patients

Diagnostic criteria

Patients were diagnosed on the basis of classical signs and symptoms of *Amavata* like *Angamarda* (Bodily pain), *Aruchi*(Anorexia), *Deha Gaurava*(Heavyness in body), *Jwara*(Fever), *Anga Shotha*(swelling).

Objective biological markers like Erythrocyte Sedimentation Rate (ESR), C-Reactive Protein (CRP), RA Factor, Walking time, Grip strength and patients satisfying ACR/EULAR criteria.

Inclusion criteria

- Patient with sign & symptom of *Amavata* as mentioned in *Madhav Nidana*.
- Both seropositive & seronegative cases of *Aamavata*.
- Patients with age group of 20 to 70 years.
- Patients with acute and less chronic duration of the disease.

Exclusion criteria

- Organ dysfunction and multiple chronic complications
- Patients Above 70 years of age.
- Patients in Gouty arthritis, septic arthritis, osteoarthritis & ankylosis spondylitis.
- Patients having severe degree of deformity & complications, as per *Updravas* described in ayurvedic texts like *Madhav Nidana*.
- Pregnancy & lactation
- Chronicity > 10yrs.
- Patients with Hepatitis B (HBsAg) positive, Hepatitis C positive and HIV Positive Patients with COVID 19 Positive.
- Patients with psychological illnesses, patients who are not able or willing to sign informed consent form.

Assessment criteria

Subjective and objective criteria was assessed based on gradings as per severity of cardinal signs and symptoms of the disease. Assessment was done before and after the completion of treatment i.e. after 2nd follow up.

No.	Sign & Symptoms	Criteria	Score
1.	<i>Sandhi Shoola</i> (joint pain)	Discomfort to mild Pain	1
		Discomfort to moderate Pain	2
		Severe Pain (continuous)	3
2.	<i>Sandhi shotha</i> (joint swelling)	No swelling	0
		Slight swelling: moves; the joint with to full extent	1
		Moderate swelling; moves the joint with pain to full extent	2
		Severe swelling: Restricted/ No.	3
3.	<i>Sandhi stabdata</i> (joint stiffness)	No stiffness	0
		Get better after walking for a few minutes	1

		Gets better with activity as the day progress	2
		Don't get better; remains constant throughout the day	3
4.	Angamarda (Bodyache)	No Bodyache	0
		Bodyache getting better after a few mins of activity	1
		Bodyache getting better activity towards midday	2
		Bodyache persisting at all times	3
5.	Aruchi (Anorexia)	Appreciates all <i>Rasa</i> 's	0
		Appreciates any 4 <i>Rasa</i> 's.	1
		Appreciates any 2 <i>Rasa</i> 's	2
		Don't's Appreciates taste of food	3
6.	Trishna (Thirst)	Quantity of water intake 0-2 liters per day	0
		Quantity of water intake >2-3 liters per day	1
		Quantity of water intake >3-4 liters per day	2
		Quantity of water intake >4 liters per day	3
7.	Aalasya (Laziness)	Interested to do all activities	0
		Can perform personal & other with little interest	1
		Can perform only personal & other activities without interest	2
		No interest in any Activity	3
8.	Jwara (Fever)	No rise in temperature(98.40 F)	0
		Patient feels increase in temperature (98.40- 99.0 F)	1
		Temperature 99.0 – 101.0 F 2 Temperature >101.0 F	2
9.	Apaka (Indigestion)	No indigestion	0
		Heavy foods not digested properly	1
		Delayed digestion of lighter food	2
		Impaired digestion of even lighter food	3

Objective Parameters

ACR/EULAR 2010 RA classification criteria

No.	Category	Criteria	Score
1.	Grip Strength	Normal	0
		Mild Weakness	1
		Moderate weakness	2
		Severe weakness	3
2.	50-Foot Walking Time	Normal Gait (10 – 15 Seconds)	0
		Mild Impairment (16 – 20 Seconds)	1
		Moderate Impairment (21 – 30 Seconds)	2
		Severe Impairment (> 30 Seconds)	3
3.	Restricted Range of Motion (ROM)	Normal (0% Restriction)	0
		Mild (Up to 25% Restriction)	1
		Moderate (26% to 50% Restriction)	2
		Severe (> 50% Restriction)	3

Study Design

A total of 30 patients (N=30) who unambiguously fulfilled both the classical Ayurvedic diagnostic criteria for *Amavata* and the modern rheumatological criteria for Rheumatoid Arthritis were selected for the final study cohort. As *Shodhana* procedure *Vaitarana Basti* was

selected for about duration of 16 days and *Pathyadi Churna* was selected as *Shamana Aushadhi*.

Procedure

Vaitarana Basti for 16 days was given in the group of N=27 patients. *Sthanika Abhyanga* and *Swedana* was done prior to therapy. *Basti* was prepared in systemic manner, *Guḍa* (Old Jaggery), *Saindhava Lavana*, *Tila Taila*, *Chincha* Paste and *Gomutra* were added in sequence with quantity of 1 *Sukti*(24 g), 1 *Karsha*(12 g) 1.5 *Pala*(~60 ml), 1 *Pala*(48 g), 1 *Kudawa*(~200 ml) respectively.^[6] Approx 300 ml *Basti* quantity was measured after filtering through cotton cloth.

The patient was positioned in the Left Lateral Decubitus position (*Vama Parshva*). The *Basti Netra* (nozzle) was lubricated and gently inserted into the rectum. The *Basti Putaka* (enema bag) was squeezed with uniform, steady pressure to introduce the emulsion into the colon without causing spasms. This procedure was continued for about 16 days in 27 patients (As 3 patients were dropped out). *Pathya Ahara-Vihara* was advised after therapy and *Pathyadi Churna* was given post treatment.

Follow-ups: Total two follow up were done after procedure at duration of 15 days.

OBSERVATIONS AND RESULTS

This clinical randomized single group study of 30 patients out of which 27 patients completed the treatment and 3 patients were dropout from study. observation was done on 30 patients and assessment of results were drawn on 27 patients who were subjected for *Vaitarana Basti* procedure.

Table 1: Age wise distribution of patients.

Age Group (Years)	Frequency (n)	Percentage (%)
20–30	2	6.67
31–40	5	16.67
41–50	7	23.33
51–60	13	43.33
>60	3	10.00
Total	30	100.00
Mean Age (Years)	48.5	

The above table shows that in the present study

- Maximum number of patients i.e. 43.33% belonged to age group between 51-60 years,

- Followed by 23.33% patients in 41–50 years and 16.67% in 31- 40 years age groups,
- 10% of patients were observed above 60 years age and 6.67% in 21-30 years age groups.

Table 2: Sex wise distribution of patients.

Gender	Frequency (n)	Percentage (%)
Male	15	50
Female	15	50
Total	30	100

In this study as shown in table above, 50% patients were female and 50% of the patients were male.

Table 3: Occupation wise distribution of patients.

Occupational Category	Frequency (n)	Percentage (%)
Sedentary Work	12	40.00
Moderate Labour	13	43.33
Heavy Labour	5	16.67
Total	30	100.00

In the view of occupation of patients, it was observed that

Majority of patients about 43.33% were moderate labour workers,

While 40% of patients were sedentary workers,

16.67% of patients were heavy labour workers.

Table 4: *Koshtha* (Bowel habit) wise distribution of patients.

<i>Koshtha</i> Status	Description (Bowel Transit)	Frequency (n)	Percentage (%)
<i>Krūra</i>	Hard/Constipated	19	63.3
<i>Madhyama</i>	Normal/Balanced	9	30.0
<i>Mṛdu</i>	Soft/Laxative-Sensitive	2	6.7

Above table reveals that

More than half of the patients i.e. 63.3% were having *Krura Koshtha* while,

30% patients were having *Madhya Koshtha*,

6.7% patients were having *Mṛdu Koshtha*.

Table 5: Agni Status (*Jatharāgni Parīkṣā*) wise distribution of patients.

Agni Status	Classification	Frequency (n)	Percentage (%)
<i>Mandāgni</i>	Slow/Hypo	21	70.0
<i>Viṣamāgni</i>	Irregular	7	23.3

<i>Tikṣṇāgni</i>	High/Hyper	2	6.7
Total		30	100.0

Above table reveals that

About 70% were having *Mandāgni* while,

23.3% patients were having *Viṣamāgni*,

6.7% patients were having *Tikṣṇāgni*.

Table 6: Duration of Illness (*Kāla* / Chronicity) wise distribution of patients.

Duration of Illness (Years)	Classification	Frequency (n)	Percentage (%)
< 1 Year	<i>Nava Amavata</i>	6	20
1 – 5 Years	Chronic Active	18	60
> 5 Years	<i>Kṛcchrasādhyā</i>	6	20
Total		30	100

Above table highlights chronicity of disease wise distribution, which indicates that maximum number of the patients i.e. 60% of the patients were between 1-5 years of chronicity,

20% patients were having less than 1 year chronicity,

20% patients were having chronicity of More than 5 years chronicity.

Other observational findings

Table 7: Effect of *Vaitarana Basti* on Subjective parameters.

Parameter	Mean BT (Baseline)	Mean AT (Post-Treatment)	Mean Difference	% Relief / Change	P Value
<i>Sandhi Śūla</i> (Joint Pain)	2.60	0.90	1.70	65.38% (Relief)	< 0.001
<i>Sandhi Stabdhata</i> (Stiffness)	2.20	0.50	1.70	77.27% (Relief)	< 0.001
<i>Sandhi Śoṭha</i> (Swelling)	1.80	0.40	1.40	77.78% (Relief)	< 0.001
<i>Sparśasah atva</i> (Tenderness)	1.50	0.30	1.20	80.00% (Relief)	< 0.001

In patients post treatment there was 65.38% relief in *Sandhi Shula*, 77.27% relief in *Sandhi Stabdhata*, 77.78% relief in *Sandhi Shotha* and 80% relief in *Sparsha Asahatva*.

Table 7: Effect of Vaitarana Basti on Objective parameters.

Parameter	Mean BT (Baseline)	Mean AT (Post-Treatment)	Mean Difference	% Relief / Change	P Value
Walking Time (25 feet)	22.45 sec	14.20 sec	8.25 sec	36.75% (Faster)	< 0.001
Grip Strength	75.50 mm Hg	110.25 mm Hg	34.75 mm Hg	46.02% (Stronger)	< 0.001

In patients post treatment there was 36.75% relief in walking time and about 46.02% relief in grip strength.

Table 7: Effect of Vaitarana Basti on Laboratory parameters.

Parameter	Mean BT (Baseline)	Mean AT (Post-Treatment)	Mean Difference	% Relief / Change	P Value
ESR	50.13 mm/hr	38.83 mm/hr	11.30 mm/hr	22.54% (Reduction)	< 0.001
CRP	12.10 mg/L	8.35 mg/L	3.75 mg/L	31.00% (Reduction)	< 0.001
Hemoglobin (Hb%)	11.34 gm%	11.49 gm%	0.15 gm% (Increase)	1.32% (Increase)	0.0014
RA Factor (Titre)	62.82 IU/mL	59.36 IU/mL	3.46 IU/mL	5.51% (Reduction)	< 0.001

In patients post treatment there was 22.54% reduction in ESR, 31% relief in CRP, Less improvement was observed in Hemoglobin about 0.15% and about 5.51% reduction in RA Factor.

Table 8: overall effect of Treatment.

Improvement	Criteria	No. of Patients	% Relief / Change
Unchanged	< 25% relief	0	0%
Mild Improvement	25-50% relief	3	10%
Moderate Improvement	50-75% relief	9	30%
Marked Improvement	> 75% relief	18	60%
Complete Remission	(100% relief)	0	0%

DISCUSSION

In *Ayurveda*, *Amavata* is described as a systemic disorder that develops due to the vitiation of *Vata Dosha* along with the accumulation of *Ama* (metabolic toxins). The *Ama* circulates

through the *Srotasa* and eventually gets deposited in the *Sandhis* (joints), leading to inflammatory manifestations similar to those observed in Rheumatoid Arthritis.^[7] The following discussion evaluates the impact of the therapy on subjective symptoms, functional parameters, and laboratory markers in order to understand its probable mode of action.

Amavata can be correlated with Rheumatoid Arthritis, a chronic systemic inflammatory joint disorder that mainly affects the synovial joints. Features such as cardiac involvement, symmetrical joint involvement, pain, stiffness, swelling, and various systemic complications closely resemble the clinical presentation of *Amavata*.

Viruddhahara (Indulgence in incompatible foods and habits), *Viruddhchesta* (lack of physical activity, or doing exercise after taking fatty foods) and those who have *mandagni* (poor digestive capacity even normally) also; produce *Ama* (improperly digested food) in the body.^[8] This *Ama*, associating itself with *Vata* moves quickly to the different seats of *Kapha* in the body filling them and the *Dhamanis* (Blood vessels) with *Vata*, *Pitta* and *Kapha* assuming different colours, blocks the tissue pores and passages with thick waxy material. It produces weakness and heaviness of the heart, which becomes the seat of the disease.^[9]

Vaitaraṇa Basti

Vaitaraṇa Basti is selected as a procedure for the trial, it is a highly specialized *Nirūha* (decoction-based) enema. Unlike standard oral formulations, *Basti* liquids must be prepared extemporaneously (immediately prior to administration) as a complex therapeutic emulsion. The *Basti Sammishraṇa Vidhi* (mixing protocol) is a precise pharmaceutical process designed to stabilize immiscible phases (oil and aqueous liquids) to ensure uniform drug delivery to the *Pakvāsaya* (large intestine).

The management of *Amavata* requires strict dietary discipline.

Pathyadi Churna

Pathyadi Cūrṇa is a polyherbal formulation administered orally as *Shamana Cikitsā* (pacifying therapy) to maintain the benefits of *Basti* and sustain digestive fire. It is classically referenced for systemic *Vata-Kapha* pathologies. The formulation is composed of three potent herbs: *Pathya* (*Haritaki*), *Śuṅṭhī* (Dry Ginger), and *Ajamodā* (Celery seed).^[10]

Haritaki is considered *Vata-Kapha Hara* and a potent *Deepana–Pachana* drug in *Ayurveda*. In *Amavata*, it helps digest and eliminate *Ama* by improving *Agni*. It also works as a mild

Anulomana, clearing obstructed *Vata* from the channels. Thus, *Haritaki* helps reduce joint stiffness, pain, and swelling associated with *Amavata*. *Śuñṭhī* (Dry Ginger) is *Uṣṇa Vīrya* (hot potency) improves circulation and relieves inflammation in affected joints. *Ajamoda* help in digesting *Ama*, the main pathogenic factor in *Amavata*. Due to its *Ushna Veerya* and *Vata-Kapha Shamana* action, it reduces joint pain, stiffness, and inflammation. It also improves *Agni* and promotes proper metabolism, thereby preventing further formation of *Ama*.

Patients were advised to consume Pathya foods that are *Laghu* (light), *Uṣṇa* (warm), and *Rūkṣa* (dry) to improve digestion and reduce *Ama*. The recommended diet included *Yava* (barley), *Kulattha* (horse gram), *Raktashali* (red rice), *Patoḷa* (pointed gourd), and *Karvellaka* (bitter gourd). Drinking *Śuñṭhī* (dry ginger)–boiled water was also advised to support continuous *Amapācana*.^[11] Foods considered *Apathya* were strictly restricted as they aggravate *Ama* and impair *Agni*. Items that are *Guru* (heavy), *Snigdha* (unctuous), and *Abhiṣyandi* (channel-blocking) such as dairy products (especially curd), *Māṣa* (Black gram), refined sugars, and cold water were avoided. Lifestyle restrictions included daytime sleep (*Divasvapna*) and exposure to cold winds (*Pragavata*), as they weaken *Agni* and promote *Ama* formation.^[12]

Probable mode of action of *Vaitarana Basti*

The efficacy of *Vaitarana Basti* is due to the synergistic action of its components. *Saindhava Lavana* along with *Gomutra* acts as a bioenhancer, improving the permeability of the colonic mucosa and facilitating the absorption of therapeutic molecules. The mild alkaline nature of *Gomutra* helps in the breakdown of complex *Āma*, while *Cincā* (*Tamarindus indica*) promotes *Vāta Anulomana* and provides anti-inflammatory effects, thereby helping to alleviate the symptoms of *Amavata*.

CONCLUSION

The study validates that the combined regimen of *Vaitarana Basti* and *Pathyadi Churna* is a statistically effective, scientifically grounded, and safe therapeutic modality for the management of *Amavata* (Rheumatoid Arthritis). The therapy successfully breaks the pathogenesis (*Samprapti Vighatana*) by correcting metabolism, eliminating toxins, and pacifying *Vata Dosha*, leading to significant functional recovery and improved quality of life.

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