



**CLINICAL EFFICACY OF BRIHAT SAINDHAVADI TAILA JANUBASTI AND KSHAR BASTI IN THE MANAGEMENT OF AMAVATA W.S.R. TO RHEUMATOID ARTHRITIS**

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**ABSTRACT**

Amavata is a Shula pradhana vyadhi, the intensity of the pain is high grade among the other diseases. It is one of the crippling diseases, claiming the maximum loss of human power. It is not only a disorder of locomotor system but is a systemic disease and is named after its chief pathogenic constituents i.e. Ama and Vata. Rheumatoid Arthritis is a chronic multisystem disease of unknown cause and can be defined as a chronic polyarthritis affecting mainly the more peripheral joints, running a prolonged course with exacerbation and remission and accompanied by a general systemic disturbance. The disease is characterized by swelling of the synovial membrane and periarticular tissues, subchondral osteoporosis erosion of cartilage and bone and wasting of the associated muscles. The management of rheumatoid arthritis is still in enigma for modern science. Total 30 patients diagnosed as Amavata of any socio-economic status, age group of 20-60 years and irrespective of sex were randomly selected. The patients were treated with Brihat Saindhavadi Taila Janu basti and Ksharbasti for 45 days. The outcome revealed a better therapeutic efficacy of Brihat Saindhavadi Taila Janu basti and Ksharbasti in the whole symptom of Amavata and general functional capacity, walking time, grip strength and foot pressure of patients without any adverse effects.

**KEYWORDS:** Amavata, Rheumatoid Arthritis, Brihat Saindhavadi Taila Janubasti, Kshar basti.

**INTRODUCTION**

Amavata is a disease which is not stated in Brihatrayee as a separate chapter. It was described for the first time in detail by Madhavakara dealing with the aetiopathogenesis of the disease in a systematic manner besides the signs, symptoms, complications and prognosis.

Amavata is most common debilitating joint disorder which makes the life of patient almost crippled. It is seen most commonly in the patients due to their changing dietetic habits, social structure, environment and mental stress and strain. Derangement of Agni that is Agnimandya (hypo-functioning of Agni) is a chief factor responsible for the formation of Ama, which is main pathological entity of the disease. The etiological factor for both vitiation of Vata and formation of Ama are responsible for the manifestation of the disease. Hridya daurbalaya, gaurava, angamarda, aruchi, gatra vedana, jwara, gastrastabhata and sandhigraha are samanya purva rupa of Amavata. Kukshishool, nidraviparyaya, bhrama, daha, raga, kandu, stimita are vishista purvarupa of

Amavata. It is mostly the disease of Madhyama Roga Marga with Chirakari Swabhava.

Due to their similar mode of presentation the term rheumatoid arthritis can be broadly grouped under heading of Amavata. The disease rheumatoid arthritis is chronic in nature and affects mostly the middle aged group. It is one of the common debilitating diseases by the virtue of its chronicity and implications. The onset of disease is frequent during 4<sup>th</sup> and 5<sup>th</sup> decade of life with 80% of patients developing the disease between 35 -50 years of age. Community prevalence study shows that female are more sufferers than male and the ratio of occurrence between them is 3:1.

General management includes - Langhana, Swedana, drugs having Tikta, Katu Rasa and Deepana action, Virechana, Snehapana and Anuvasana as well as Kshar Basti.

The purpose of this observational clinical study is to describe a Panchakarma therapy program and long-term

outcomes for patient with Amavata (Rheumatoid arthritis).

### OBJECTIVES

1. Conceptual study of Amavata with special reference to Rheumatoid arthritis.
2. To study the efficacy and mode of action of Brihat Saindhavadi taila Janubasti and Kshar Basti.

### Methodology of the research work

The research study entitled “Clinical efficacy of Brihat Saindhavadi Taila Janubasti and Kshar Basti in the management of Amavata w.s.r. to Rheumatoid Arthritis” was an observational clinical study done with combination therapy of Janu basti (external) and Kshar Basti (internal) procedure.

### Methods of collection of Data

- Patients fulfilling the criteria for the diagnosis of the disease were registered for the present study irrespective of their age, sex, religion etc. The patients were selected from the OPD of Govt. (Auto.) Ayurved College & Hospital, Jabalpur & Rewa (MP).
- A clinical evaluation of patients was done by collection of data through information obtained by history, physical examination, and laboratory tests including radiological investigations.

### Inclusion Criteria

- Patients with classical features of Amavata explained in texts.
  - Patients of any socio-economic status, both sexes and all ethnic origins.
  - Patients with age group of 20-60 years.
  - Both fresh and treated cases were selected.
  - The base of criteria led down by American Rheumatism Association was also taken into consideration as follows –
    - \* Early morning stiffness > 1 hour
    - \* Arthritis of three or more joints
    - \* Arthritis of hand joints
    - \* Symmetrical arthritis
    - \* A positive serum Rheumatoid Factor (R.A. Test)
    - \* Typical Radiological changes
- Diagnosis of Rheumatoid Arthritis made with 4 or more criteria.

### Exclusion Criteria

- Patients with uncontrolled metabolic and other systemic disorders.
- Chronic cases with permanent deformity for more than 10 years
- Age less than 20 years and more than 60 years
- Patients having surgical intervention were excluded.

### Criteria for Selection of Drug

In Chakrapani's Chakradutta Brihat Saindhavadi Taila and Kshar Basti has been mentioned in the treatment of

Amavata. Brihat Saindhavadi Taila was used in the form of Paan, Basti and Abhyanga. In present study Brihat Saindhavadi Taila Janubasti and Kshar Basti were selected. Kshar Basti is a type of niruha basti mainly contains Saindhava, Guda, Chinchu, Shatahva and Gomutra. Kshar basti in the form of yoga basti is considered as laghu, ruksha, ushna, teekshna and majority of the drugs are having Vata-kapha shamaka action. Brihat Saindhavadi taila was given in form of Anuvasan Basti. Also, the raw drugs are easily available and low cost compared to other therapy. Hence, these drugs were selected for research study.

### Treatment Schedule

1. Snehan with Brihat Saindhavadi Taila
2. Swedan – Bashpa sweda
3. Janu Basti – Brihat Saindhavadi Taila
4. Kshar Basti – In a Kala basti course (15 days) followed by 15 days gap (Parihar Kal) and again 15 days Kala basti was given. Total 30 Kshar basti was given for period of 45 days.

Anuvasan – Brihat Saindhavadi Taila  
Niruh – Kshar Basti

### Ingredients –

- Saindhav lavan - 10 gms
- Shatpushpa – 10 gms
- Imli – 80 gms
- Gud – 80 gms
- Gomutra – 320ml

### Diagnostic Criteria

An elaborate case paper incorporating the points of history taking and physical examination was prepared. It mainly emphasized on signs and symptoms of Amavata and the criteria for Rheumatoid arthritis fixed by the American College of Rheumatology in 1987. Laboratory investigation like R.A. factor, ESR, TLC, DLC, Urine test and radiological investigation like X-ray was made to rule out other pathological conditions.

### Diet Regimen

While prescribing the diet of the patients, concept of Pathya-Apathya related to Ama was kept in mind; light diet was advised as per the status of Agni.

### Research Design

It was an observational clinical study, patients were assigned into single group consisting of 30 patients excluding dropouts with pre, mid and post test study design.

### Criteria for Assessment

The assessment was made before and after the treatment on scoring of signs and symptoms of Amavata. Results were analyzed statistically as per the assessment chart.

**Instrumentation:** Scoring pattern was developed according to severity of symptoms.

**Symptoms related to joints****Joint Pain**

- 0: No pain  
 1: Mild pain of bearable nature, comes occasionally  
 2: Moderate pain, but no difficulty in joint movement  
 3: Severe pain, difficulty in joint movement

**Swelling of the joint**

- 0: No swelling  
 1: Slight swelling  
 2: Moderate swelling  
 3: Severe swelling

**Tenderness of the joints**

- 0: No tenderness.  
 1: Subjective experience of tenderness.  
 2: Wincing of face on pressure.  
 3: Resist to touch.

**Stiffness of the joint**

- 0: No stiffness or stiffness lasting for 5 min  
 1: Stiffness lasting for 5 min to 2 hours  
 2: Stiffness lasting for 2 to 8 hours  
 3: Stiffness lasting for more than 8 hours

**Shifting of joint pain**

- 0: No shifting of joint pain  
 1: Occasional shifting of joint pain  
 2: Mild shifting of joint pain  
 3: Moderate shifting of joint pain

**Warmth of the joint**

- 0: Normal temperature  
 1: Mild temperature  
 2: Moderate temperature  
 3: Raised temperature when compared to the normal

**Restriction of movements of the joint**

- 0: No restriction of joint movement  
 1: Mild restriction of joint movement  
 2: Moderate restriction of joint movement  
 3: Complete restriction of joint movement

**Other symptoms score**

- 2: Symptoms present before starting the treatment  
 1: Any improvement in symptom after the treatment  
 0: Complete remission of symptom after treatment  
 2: No change

Other symptoms are Jwara (Fever), Shirshool (Headache), Nidranasha (Insomnia), Kandu (Itching), Daha (Burning sensation), Stemitya, Bahumutrata (Polyurea), Brahm (Vertigo), Hridayagraha, Angagraha, Gaurav (Heaviness), Alasya (Drowsiness), Mukhaprased (Stomatitis), Aruchi (Anorexia), Trishna (Thirst), Kshudhanasha (Loss of appetite), Chardi (Vomiting), Antrakujan, Vibandha (Constipation), Kukshishool (Backache), Anaha.

**Functional Assessment**

- Walking Time – Time taken to walk a distance of 25 feet  
 0: 15-20 sec.  
 1: 21-30 sec.  
 2: 31-40 sec.  
 3: > 40 sec.
- Grip strength – ability to compress an inflated ordinary sphygmomanometer cuff  
 0: 200mmHg or more  
 1: 199-120 mmHg  
 2: 119-70 mmHg  
 3: under 70 mmHg
- Foot pressure – ability of patients to press a weighing machine  
 0: 25 -21 kg  
 1: 20 -16 kg  
 2: 15 -10 kg  
 3: < 10 kg
- General functional capacity  
 0: Complete ability to carry on all routine duties.  
 1: Adequate normal activity despite slight difficulty in joint movement.  
 2: Few activities are persisting but patient can take care of himself.  
 3: Few activities are persisting and patient requires an attendant to take care of himself.  
 4: Patients are totally bed ridden.

**Assessment of total effect:** The total effect of therapy was assessed as;

Assessment	Score
Complete cure	100%
Marked Relief	75-99%
Moderate Response	50 to 75%
Mild Improvement	25-50%
No response	0-25%

**OBSERVATION**

The effect of Brihat Saindhavadi Taila Janubasti and Kshar Basti was studied in 30 patients suffering from Amavata (Rheumatoid Arthritis), fulfilling the inclusion criteria. The observations were as follows: Maximum number of patients were obtained in the age group of 31-40 years that is 36.67% followed by 26.67% patients in the age group of 41-50 years, 23.33% patients in the age group of 20-30 and 13.33% patients in the age group of 51 to 60 years. Male patients were 33.33% and female patients were 66.67%. Most of the patients 80% were Housewives and doing desk work and the maximum numbers of patients i.e. 50% were from Middle income group. Most of the patients 76.67% were taking mixed type of diet. 60% of patients were having Mandagni and 60% were having Madhyam Kostha. Family history was present in 26.67% of patients.

**RESULTS**

The clinical study of Brihat Saindhavadi Taila Janubasti and Kshar Basti provided a highly significant ( $P < 0.001$ ) effect on the symptom; Sandhishool, Sandhishotha, Sandhirag, Sandhistambh, Sanchari Vedana, Sandhi Ushnasparshatva and Sandhikarya Hani. The other symptoms score showed highly significant ( $P < 0.001$ ) effect. Functional assessment on walking time, grip strength, foot pressure and general functional capacity

showed highly significant ( $P < 0.001$ ) effect. The relief percentage in individual symptoms of Amavata (Rheumatoid Arthritis) revealed a better therapeutic efficacy of Saindhavadi Taila Janubasti and Kshar Basti. The overall assessment showed 6.67% patients got complete cure, 16.67% were showed marked relief and 76.66 were showed moderate response after completion of the treatment.

**Effect of Therapy on Joint symptoms of 30 patients of Amavata (Rheumatoid Arthritis).**

Symptoms	Mean		Mean Diff.	Relief %	SD	SE	't'	P
	BT	AT						
Pain	2.40	0.90	1.50	62.50	0.51	0.09	12.83	<0.001
Swelling	2.18	0.75	1.43	65.59	0.50	0.10	10.75	<0.001
Tenderness	2.07	0.70	1.37	66.18	0.56	0.11	9.89	<0.001
Stiffness	2.32	0.64	1.68	72.41	0.48	0.09	10.18	<0.001
Shifting pain	2.26	0.85	1.41	62.38	0.50	0.10	11.46	<0.001
Warmth of joint	2.29	0.79	1.50	65.50	0.51	0.10	10.67	<0.001
Restriction of movement	2.31	0.73	1.58	68.39	0.50	0.10	9.31	<0.001

**Effect of Therapy on general symptoms of 30 patients of Amavata (RA).**

Symptoms	Mean		Mean Diff	Relief %	SD	SE	't'	P
	BT	AT						
Jwara	2.00	0.58	1.42	71.00	0.51	0.15	9.53	<0.001
Shirshool	2.00	0.70	1.30	65.00	0.48	0.15	8.51	<0.001
Nidranasha	2.00	0.84	1.16	58.00	0.69	0.16	7.33	<0.001
Kandu	2.00	0.50	1.50	75.00	0.55	0.22	6.71	<0.001
Daha	2.00	0.86	1.14	57.00	0.38	0.14	8.00	<0.001
Stemitya	2.00	0.80	1.20	60.00	0.42	0.13	9.00	<0.001
Bahumutrata	2.00	0.74	1.26	63.00	0.45	0.10	12.17	<0.001
Bhrama	2.00	0.62	1.38	69.00	0.52	0.18	7.51	<0.001
Hridyagraha	2.00	0.67	1.33	66.50	0.52	0.21	6.32	<0.001
Angagraha	2.00	0.83	1.17	58.50	0.38	0.09	12.91	<0.001
Gaurav	2.00	0.94	1.06	53.00	0.44	0.11	9.60	<0.001
Alasya	2.00	0.85	1.15	57.5	0.49	0.11	10.51	<0.001
Mukhaprasek	2.00	0.80	1.20	60.00	0.45	0.20	6.00	<0.001
Aruchi	2.00	0.83	1.17	58.50	0.38	0.09	12.91	<0.001
Trishna	2.00	0.83	1.17	58.50	0.39	0.11	10.38	<0.001
Shudhanasha	2.00	0.67	1.33	66.50	0.49	0.11	11.66	<0.001
Chhardi	2.00	1.00	1.00	50.00	0	0	0	<0.001
Antrakujan	2.00	0.83	1.17	58.50	0.41	0.17	7.00	<0.001
Vibandh	2.00	0.78	1.22	61.00	0.42	0.09	13.84	<0.001
Kukshishool	2.00	0.50	1.50	75.00	0.53	0.19	7.94	<0.001
Anaha	2.00	0.77	1.23	61.50	0.43	0.09	13.42	<0.001
Shuntanga	2.00	0.71	1.29	64.50	0.49	0.18	6.97	<0.001

**Effect of Therapy on Functional assessment of 30 patients of Amavata (RA).**

Assessment	BT	AT	Mean Diff.	Relief %	SD	SE	't'	P
Walking Time	38.30	18.20	20.10	52.48	4.01	0.73	22.72	<0.001
Grip strength	11.93	19.33	-7.40	62.02	2.71	0.50	14.90	<0.001
Foot pressure	94.23	149.20	-54.97	58.33	15.30	2.79	18.29	<0.001
General Functional capacity	2.07	0.83	1.23	59.42	0.57	0.10	9.09	<0.001

**Effect of Therapy on Blood Examinations.**

Parameters	BT	AT	Diff.	Relief %	SD	SE	't'	P
R A Factor	1.00	0.67	0.33	33.00	0.48	0.10	3.39	<0.001
Hb%	13.21	13.72	-0.52	3.93	0.43	0.08	1.67	>0.05
ESR	15.87	8.77	7.10	44.73	3.65	0.67	6.82	<0.001
TLC	7083	6967	116	1.63	71.1	12.98	0.73	>0.05
Neutrophil	58.87	63.23	-4.37	7.42	2.58	0.47	4.17	<0.001
Lymphocyte	34.53	29.80	4.73	13.69	2.90	0.53	4.61	<0.001
Eosinophil	4.13	5.23	-1.10	26.63	1.03	0.19	4.16	<0.001
Monocyte	2.47	1.63	0.83	33.60	0.53	0.10	5.19	<0.001

**Overall effect of Brihat Saindhavadi Taila Janubasti and Kshar Basti in 30 patients of Amavata (Rheumatoid Arthritis).**

Result	Number of Patients	Percentage
Complete Cure	02	6.67%
Marked Relief	05	16.67%
Moderate Response	23	76.66%
Mild Improvement	00	00
No Response	00	00

**DISCUSSION**

Amavata is a Shula pradhana vyadhi. The intensity of the pain is high grade among the other diseases. It is one of the crippling diseases, claiming the maximum loss of human power. It is not only a disorder of locomotor system but is a systemic disease and is named after its chief pathogenic constituents i.e. Ama and Vata. The aetiopathogenesis of Amavata based on the disturbance of Agni and vata dominant Tridosha. The disease is initiated by the consumption of Viruddha Ahara and simultaneous indulgence in Viruddha Ahara in the pre-existence of Mandagni. Though, Ama and Vata are chiefly pathogenic factors Kapha and Pitta are also invariably involved in its samprapti. It is well known that Amavata is a disease of Madhyama rogamarga as per its disease usually starts from the kostha (Maha srotas) and Agnimandya is usually found with special inclination for Sleshma sthana especially Sandhi. Rasa, Asthi and Majja dhatus are primarily involved Dushyas though the Mamsa Dhatu, Snayu and Kandara are also affected. Agnimandya and Ama formation denotes that Abhyantara rogamarga also involved in this disease. Sandhishoola, Sandhishotha, Stabdhatta and Sparshasahyata are salient feature of the disease. The disease Amavata run a chronic course and Jadya, Sankocha, Angavaikalya etc. are responsible for crippling of the patients in the long run. The treatment principle of Amavata stands on three Process –

- 1. Ama pachana** – by Langhana, Swedana, Pachana, Deepana.
- 2. Ama/vata Nirharana** – by Virechan, Snehapana & Basti.
- 3. Agni saramkshana** – by Deepana.

Rheumatoid Arthritis is a chronic multisystem disease of unknown cause and can be defined as a chronic polyarthritis affecting mainly the more peripheral joints, running a prolonged course with exacerbation and remission and accompanied by a general systemic

disturbance. The disease is characterized by swelling of the synovial membrane and periarticular tissues, subchondral osteoporosis erosion of cartilage and bone and wasting of the associated muscles. The management of rheumatoid arthritis is still in enigma for modern science. Despite intensive research, the aetiology of Rheumatoid Arthritis remains unknown. There is no clear evidence of an infective cause although this is a possibility. Immunological tests may demonstrate an imbalance between T-helper and T-suppressor cells. It is known that some 60% of rheumatoid patients will be DR4+. It has been suggested that diet or stress could play a significant role, in the majority of rheumatoid arthritis patients.

The goals of treatment – Relieve pain, reduce inflammation, slow down or stop joint damage, improve a person's sense of well-being and ability to function. Current treatment approach includes – Life style management, medications, surgery, routine monitoring and ongoing care and other therapy.

Snehan karma stimulates the sensory nerve endings and provides strength to the muscles. Janu basti with Brihat Saindhavadi Taila comprises mainly Rock salt, Amalki, Haritaki, Bibhitaki, Rasna, Pippali, Gajpippali, Sarjeeka Kshar, Maricha, Kustha, Sunthi, Sauvarchal, Vida, Yavani, Ajmoda, Pushkarmula, Ajaji, Madhuka, Shatapushpa, Erand Taila, Mastu and Kanji. All these drugs are snigdha, ushna, vata kaphashamaka and possess anti-inflammatory and analgesic properties. Swedan enhance local microcirculation, by increasing the diameter and blood flow velocity of peripheral arterioles, delivering higher level of oxygen and nutrients to the injured cells. Bashpa Nadi sweda are ushna, vata-kaphahara guna, which also help in relieving symptoms of Amavata.

Basti is preventive, promotive and curative therapeutic intervention. Kshar basti mentioned by Acharya Chakradatta is a type of niruha basti mainly contains Saindhav Lavan, Shatpushpa, Imli, Gud and Gomutra. It is free from complications and having broad-spectrum efficacy and it does the purpose of eliminating doshas and of improving strength and complexion. Kshar basti in the form of yoga basti is considered as laghu, ruksha, ushna, teekshna and majority of the drugs are having Vata-kapha shamaka action. Brihat Saindhavadi taila was given in form of Anuvasan Basti.

Rock salt is having Lavana rasa, laghu, ruksha, sukshma guna, ushna veerya and katu vipaka which helps to reduce tridosha, hridya, agnideepak in properties and helpful in netraroga. Shatpushpa is having properties like laghu, teekshna, ushna, katu, tikta rasa and katu vipaka, deepan, pachan, kaphavatahar, jwarahar, akshephar in nature. Gomutra having katu, tikta, kashaya rasa, ushna, laghu, teekshna guna, ushna veerya and katu vipaka and agnideepak, kaphavatanashak in properties. Imli, amla in rasa, guru, ruksha guna, ushna veerya and amla vipak having tridoshashamak, agnideepak, sarak and kaphavatanashak properties. Gud is madhura in rasa, laghu, snigdha, sar in guna, ushna veerya and madhur vipak having vatapittanashak, vrishya and balavardhak properties. Most of the drugs are vata-kaphaghna in nature.

As a whole the qualities of drugs in Kshar Basti are considered as laghu, ruksha, ushna, teekshna. Majority of the drugs are having vata-kapha shamaka action. Owing to this property, antagonism to kapha and vata the basti helps in significant improvement in sign and symptom of disease. The teekshna guna of basti help in overcoming the srotodushti resulting due to 'sanga'. Combination of above drugs in Kshar basti causes potent anti-inflammatory, pain relieving effect.

## CONCLUSION

The present observational clinical study signifies the role of Janu basti and Kshar basti in the treatment of Amavata (Rheumatoid Arthritis). The patients can make significant gains in generalized and localized signs and symptoms, general functional capacity, walking time, grip strength, foot pressure of patients and haematological parameters in relatively short periods of time. Despite the limitations of this clinical study, conclude that the combination therapy of Janu Basti with Brihat Saindhavadi taila and Kshar basti is a simple and effective treatment modality for Amavata (Rheumatoid Arthritis) without any adverse effects.

Though this study was carried out in limited patients for a limited period, the mass study programming is needed for further huge database statistical study.

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