A COMPARATIVE STUDY ON THE ROLE OF YOGAVASTI (KSHAR VASTI AND SAINDHAVADI TAILA) AND AMRITADI CHURNA IN THE MANAGEMENT OF AMAVATA (RHEUMATOID ARTHRITIS)

Sumana Saha¹, Sukumar Ghosh², Ajoy Bhakat³

¹MD (kaya chikitsa) Senior research fellow, National research institute of Ayurvedic Drug Development, 4CN Block Sector V, Bidhannagar, Kolkata 700091, West Bengal, India
²MD, PhD, Reader & H.O.D Dept. Kaya chikitsa, I.P.G.A.E&R at S.V.S.P Kolkata, West Bengal, India
³MD (Roga Nidan&vikriti vigyan) I.P.G.A.E&R at S.V.S.P, 294/3/1 A.P.C Road, Kolkata-9, West Bengal, India

Email: sumanajoy@gmail.com

ABSTRACT
At the present day Amavata is one of the challenging disease not only in India but also all over the world. Ama and vata are two factors responsible for the disease. Changing life style and dietetic pattern are responsible for the manifestation of the disease. Amavata is characterized by angamardya, aruchi, trishna, alasya, gaurav, jwara, apaka and saunyatanganam. Amavata can be presented as very similar to rheumatoid arthritis. In this comparative study 40 patients were included and they were divided into two groups. Group A (20 patients) treated with amritadi churna. Group B (20 patients) treated with kshar vasti as niruha and saindhavadi taila as anuvasana vasti and amritadi churna. Result of the study has been assessed on the basis of clinical improvement. After administration of therapy it was found that group B showed better result in comparison to group A without any adverse effect.

Keyword: Amavata, kshar vasti, Saindhavadi Taila, Rheumatoid arthritis.

INTRODUCTION
Ayurveda deals with physical, mental and spiritual wellbeing of human. At the present day amavata⁴¹ is a crying problem in India as well as all over the world. It is frustrating and distressing ailment both for the patient as well as physicians due to its character. Ama and Vata are two factors responsible for the disease amavata. Changing life style and dietetic pattern are responsible for the manifestation of this disease. In Vrihatrayee no description of
Amavata as a disease entity is found. The details description of Amavata was found in Madhav Nidan[9]. According to Madhav Nidan amavata is characterized by angamarda[4](bodyache), aruchi[4] (anorexia), trishna[4] (thirst), alasya[4] (malaise), gauravam[4] (feeling of heaviness), Jward[4] (fever), apaka[4] (indigestion), sunyatanganam[4] (inflammation of the body parts). Amavata can be presented as very similar to rheumatoid arthritis. Rheumatoid arthritis is an auto-immune disorder of unknown aetiology characterized by chronic symmetrical poly arthritis, joint erosion and destruction. It is commonest inflammatory joint disease seen in clinical practice and in its worldwide distribution it affects 0.5 – 3% of population. Amavata is one of the greatest enemies of human being which cripples patients to make the life distressed. Management of this disease is not satisfactory up till now. The role of yoga vasti as well as amritadi churna[6] in the management of amavata is the major concern of my work.

AIMS AND OBJECTIVES
1. A thorough review of the literature concerned with amavata.
2. To study the etiopathogenesis of amavata vis-a-vis rheumatoid arthritis[5].
3. To develop more knowledge about amavata and its management.
4. To assess the efficacy of vasti and saman chikitsa, in the management of amavata.
5. To compare the effect of both therapy clinically.

MATERIALS AND METHODS

INCLUSION CRITERIA
1. Patients within the age group 15 to 55 years.
2. History of pain and swelling over joints with or without deformity.
3. Patients having middle and small joint (multiple joint) involvement.
5. Arthritis with having positive R.A factor.
6. Patient of any sex, religion, occupation, income status and educational status.
7. Patients who want to come under trial with written consent.

EXCLUSION CRITERIA
1. Patients age below 15 years & above 55 years.
2. Patients having known history of higher uric acid level (gout), osteoarthritic changes in the joints, septic arthritis, psoriatic arthritis etc.
3. Patients having known gross pathology like Pulmonary tuberculosis, Diabetes mellitus, HIV and chronic kidney disease etc.
4. Patients having severe deformity.
5. Bed ridden patient.
7. Pregnancy.
8. Patients who were not willing to come under trial.
GROUPING OF PATIENTS:

Group A: Twenty Patients have been treated with amritadi Churna\(^6\) 3 gms BDPC with warm water for 2 months.

Group B: Twenty patients have been treated with Yoga Vasti (3ksharvasti and 5 anuvasan vasti with saindhavadi taila 60 ml) along with amritadi churna for 2 months.

TRIAL DRUG & DOSES:

Amritadi Churna\(^6\): Dose: 3gms BDPC, Duration: 2 months Anupan: Luke warm water.

Vasti: Yoga vasti: 3 kshar vasti and 5 anuvasan vasti with saindhabadi taila 60ml.

KSHARVASTI\(^7\)

Ingredients:

1. Saindhav lavan (Rock salt) 10gms
2. Mouri ((Foeniculum vulgare) 10gms
3. Gomutra (Cow’s urine) 400ml,
4. Gura (Jaggery) 100gms
5. Imli pulp (Tamarandus indica) 100gms.

Method of preparation: All ingredients mixed together according to general vasti making rule and strained through a piece of cloth and administered Luke warm as vasti.

TRIAL PERIOD: Two month for each patient.

DIAGNOSTIC CRITERIA

SUBJECTIVE CRITERIA:

- Sandhi Sula, Sandhi Sotha, Angamarda, Gaurav, Sparshasahatya, Jwara,

OBJECTIVE CRITERIA:

Blood Hb% TLC, DLC, ESR, Fasting and Postprandial blood glucose, Serum R.A factor and X-Ray of the affected joints.

To exclude the gross pathology these investigations have been done before treatment in all cases but after establishment of the cases as R.A factor positive or amavata those investigations have not been done again.

ASSESSMENT CRITERIA

Table 1: The details of scoring pattern adopted for assessment

<table>
<thead>
<tr>
<th>Sandhi Sula (joint pain)</th>
<th>Sandhi Sotha (swelling of joint)</th>
<th>Angamarda (bodyache)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No pain</td>
<td>No swelling</td>
<td>No Bodyache</td>
</tr>
<tr>
<td>Mild pain</td>
<td>Mild swelling</td>
<td>Mild Bodyache</td>
</tr>
<tr>
<td>Moderate pain</td>
<td>Moderate swelling</td>
<td>Moderate Bodyache</td>
</tr>
<tr>
<td>Severe pain</td>
<td>Severe swelling</td>
<td>Severe Bodyache</td>
</tr>
<tr>
<td>Gaurav (feeling of heaviness)</td>
<td>Sparshasahatya (tenderness of joint)</td>
<td>Jwara (fever)</td>
</tr>
<tr>
<td>No Heaviness</td>
<td>No Tenderness</td>
<td>No Fever</td>
</tr>
<tr>
<td>Mild Heaviness</td>
<td>Subjective experience of tenderness</td>
<td>Mild Fever</td>
</tr>
<tr>
<td>Moderate Heaviness</td>
<td>Wincing of face on pressure</td>
<td>Moderate Fever</td>
</tr>
<tr>
<td>Severe Heaviness</td>
<td>Wincing of face withdrawal of effective part of pressure</td>
<td>Severe Fever</td>
</tr>
</tbody>
</table>

STUDY DESIGN:

Step–1 Selection of patients.

Step–2 Inform consent has been taken from all the patients of the study.

Step–3 Confirmation of diagnosis.

Step–4 Patients has divided into 2 groups (Group A and Group B)

Step–5 Dropout: All dropout patients have been recorded.
Step–6 Group A: Weekly follow up for 2 months.

Group B: Admission in IPD for *vasti karma* then weekly follow up.

Step–7 Observation of results and statistical analysis has been done.

**THERAPEUTIC TRIAL**

Therapeutic trial has been conducted in all the patients of this study. They were divided into two groups (20 patients in each group). Group – A patients were treated with *amritadi churna* for 2 months in a dose of 3 gm after meal and Group – B was treated with *yoga vasti* (3 *ksharvasti* + 5 *anuvasan vasti* with *saindhavadi taila* 60 ml) and *amritadi churna* for 2 months. The effect of the treatment on symptom’s profile in terms of percentage of relief, SD, SE, ‘t’ value and ‘p’ value was evaluated.

**RESULTS**

The clinical findings before and after treatment have been compared and assessment of data have been finally done by student’s ‘t’ test. The value has expressed as mean ± SEM (Standard Error of Mean). The patient was admitted IPD for *vasti* therapy and clinically they have been monitored every week during *saman chikitsa*.

<table>
<thead>
<tr>
<th>Sl. no</th>
<th>Symptoms profile</th>
<th>Mean score BT</th>
<th>Mean score AT</th>
<th>% of Relief</th>
<th>SD ± SE</th>
<th>‘t’ Value</th>
<th>‘p’ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sandhi Sula (joint pain)</td>
<td>2.00</td>
<td>1.2</td>
<td>40%</td>
<td>0.47</td>
<td>0.105</td>
<td>2.0</td>
</tr>
<tr>
<td>2</td>
<td>Sandhi sotha (joint swelling)</td>
<td>1.75</td>
<td>1.12</td>
<td>36%</td>
<td>0.51</td>
<td>0.114</td>
<td>2.08</td>
</tr>
<tr>
<td>3</td>
<td>Angamarda (Bodyache)</td>
<td>1.8</td>
<td>1.1</td>
<td>38.8%</td>
<td>0.53</td>
<td>0.118</td>
<td>1.74</td>
</tr>
<tr>
<td>4</td>
<td>Gourav (Heaviness)</td>
<td>1.7</td>
<td>1.2</td>
<td>29.41%</td>
<td>0.52</td>
<td>0.11</td>
<td>2.26</td>
</tr>
<tr>
<td>5</td>
<td>Sparshashatya (Tenderness)</td>
<td>2.1</td>
<td>1.3</td>
<td>38.09%</td>
<td>0.46</td>
<td>0.10</td>
<td>1.98</td>
</tr>
<tr>
<td>6</td>
<td>Jwara (fever)</td>
<td>1.6</td>
<td>1.1</td>
<td>31.25%</td>
<td>0.43</td>
<td>0.09</td>
<td>2.05</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Symptoms profile</th>
<th>Mean score BT</th>
<th>Mean score AT</th>
<th>% of Relief</th>
<th>SD ± SE</th>
<th>‘t’ Value</th>
<th>‘p’ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sandhi Sula (joint pain)</td>
<td>2.4</td>
<td>1.1</td>
<td>54.17</td>
<td>0.54</td>
<td>0.12</td>
<td>5.2</td>
</tr>
<tr>
<td>2</td>
<td>Sandhi sotha (joint swelling)</td>
<td>1.2</td>
<td>1.2</td>
<td>45.45</td>
<td>0.50</td>
<td>0.11</td>
<td>4.6</td>
</tr>
<tr>
<td>3</td>
<td>Angamarda (Bodyache)</td>
<td>2.0</td>
<td>1.0</td>
<td>50.00</td>
<td>0.52</td>
<td>0.116</td>
<td>4.3</td>
</tr>
<tr>
<td>4</td>
<td>Gourav (heaviness)</td>
<td>1.9</td>
<td>1.0</td>
<td>47.36</td>
<td>0.49</td>
<td>0.109</td>
<td>3.98</td>
</tr>
<tr>
<td>5</td>
<td>Sparshashatya (Tenderness)</td>
<td>2.1</td>
<td>1.2</td>
<td>42.85</td>
<td>0.53</td>
<td>0.118</td>
<td>4.1</td>
</tr>
<tr>
<td>6</td>
<td>Jwara (fever)</td>
<td>2.3</td>
<td>1.3</td>
<td>43.47</td>
<td>0.50</td>
<td>0.50</td>
<td>4.0</td>
</tr>
</tbody>
</table>

‘P’ value = Level of significance, SE = Standard Error, SD = Standard deviation, BT = Before treatment AT= After treatment,’t’ value = paired ‘t’ test,
Fig.1: Statistically showing the effect of Yoga vasti with amritadi churna on Group –B patients of Amavata.

DISCUSSION

Amavata is one of the chronic and most common challenging disorders of human being. Various Modern drug induced hazards of the patients, have made us influence to find out safe, effective as well as cheap remedies through Ayurvedic medicines to the suffering peoples. Madhav Nidan\(^9\) was the first to give a separate chapter of amavata in details. Details review of the disease amavata shows that agnimandya is the main factor responsible for the formation of “ama” which is the main pathological entity of the disease. The Samprapti of amavata\(^10\) is originates from the annavaha srota with special inclination for kaphasthana specially sandhi (joints). rasa, asthi and majja dhatu are involved dusshyas though the mamsa dhatu, snayu, sandhi and kandara also affected. Main features of the disease are sandhi sula, sandhi sotha, angamarda, gaurav, sparsaasahatya and jwara. The Samprapti ghatak\(^11\) of the disease amavata are Dosa-Vata, Kapha predominating Tridosha, Dusya- Rasa, Rakta, Mamsa, Snayu, Asthi, Sandhi, Srotas-Rasavaha srotas, Srotodusti-Sanga, Adhisthan-Sarva Sandhi, Udbhvabsthana- Amasaya-Pakvasaya, Rogamarga- Madhyama, Svabhava-Kastasadhya, Agni - Jatharagni, Dhatvagni, Agnidusti-Mandagni.

In modern literature review the disease rheumatoid arthritis may be parallel to amavata due to its similar clinical features. Effect of the therapy on symptoms like Sandhi Sula (joint pain), Sandhi Sotha (joint swelling), Angamarda\(^4\) (bodyache),Gaurava\(^4\) (feeling of heaviness), Sparsaasahatya\(^4\) (tenderness around the joint) and Jwara\(^4\) (fever). In Group – A patients Sandhi Sula (Joint pain), Sandhi Sotha (Joint swelling), Gaurava\(^4\) (feeling heaviness), Sparsaasahatya\(^4\) (Tenderness around the joint) and Jwara\(^4\) (Fever) were statistically significant i.e. P is <0.05 and angamarda was statistically insignificant, i.e. P is < 0.10. In Group – B patients the symptoms like Sandhi Sotha, Sandhi Sula, Angamarda, Gaurava, Sparsaasahatya and Jwara were statistically highly significant i.e. P is < 0.001.

Amritadi Churna contains Amrita\(^12\) (Tinospora cordifolia), Sunthi\(^13\) (Zingiber officinale), Gokshura (Tribulus terrestris), Mundi
(Sphaeranthus indicus) and Varuna (Crataeva nurvala) and was administered in a dose of 3 gm. twice daily for 2 months. All the components of Amritadi Churna[^6^], Amrita are tikta kasaya rasa, guru-snigdha guna, u na virya and Madhur vipaka. Sunthi is katu rasa, tikshna rukshma guna, u na virya and madhur vipak. Mundi as well as Varuna are katu tikta kasaya rasa, laghu ruksha guna, and u na virya and katu vipaka. On the basis of it the selected drug is responsible for counteracting in the level of Dosa, Dusya, Srota and Agni of Amavata. Therapy Review, ksharvasti contains saindhav lavan (Rock salt) 10gms, Mouri ((Foeniculum vulgare)10gms, Gomutra (Cow’s urine) 400ml, Gura (Jaggery) 100gms and Imli pulp (Tamarandus indica)100gms. All ingredients mixed together according to general vasti making rule and strained through a piece of cloth and administered luke warm as enema very carefully. This was also administered as Yoga vasti[^14^] (3 ksharvasti as Niruha and 5 saindhavadi taila[^8^] as Anuvasan). Saindhav lavan is madhur rasa, laghu snigdha guna and sheeta virya. Mouri is katu, tikta madhur rasa, laghu snigdha guna, and sheeta virya and madhur vipak. Gomutra is katu tikta rasa, laghu guna, u na virya. Gura is madhura rasa and guru guna. Imli is madhuramla rasa, guru-ruksha guna, u na virya and amla vipaka. On the basis of these qualities of drugs, the pharmaco dynamic action is considered. Hence the rasa, guna, virya and vipaka of these drugs as responsible for the management of Amavata (Rheumatoid Arthritis[^5^]). In the present study 40 patients have been selected on the basis of sign and symptoms described the Ayurveda and Modern text. To exclude the gross pathology blood Hb% TLC, DLC, ESR, Fasting and Postprandial blood glucose, Serum R.A factor and X-Ray of the affected joints, these investigation have been done before treatment in all cases but after establishment of the cases as R.A factor positive or amavata these patients have been included in the trial so after treatment those investigations have not been done again as it is a completely clinical study so relief from the signs and symptoms were the important events.

The selected patients were randomly divided into 2 groups. Group-A (20 patients) patients were treated with Amritadi Churna 3 gms twice daily after meal with warm water for 2 months along with valuka (sand) sweda twice daily. Group-B (20 patients) were treated with Vasti therapy (3 ksharvasti[^7^] as Niruha and 5 saindhavadi taila[^8^] as Anuvasan) along with saman chikitsa by amritadi Churna[^6^] 3 gms twice daily after meal with warm water followed by valuka swedan twice daily. Scoring system of Pargotra et. Al 2011 have been followed and calculated the same over signs and symptoms before treatment and after treatment .Data furnished in the table no 2 and table no 3. The results analysed by using paired ‘t’ test significant of the therapy has been judged statistically.

**CONCLUSIONS**

It can be concluded from the study that amavata is a chronic & crippler disease similar to rheumatoid arthritis. Middle aged vata kapha prakriti patients are more prone to develop amavata. Yoga Vasti has definite role in amavata. Yoga Vasti (3 ksharvasti and 5 Anuvasan vasti with saindhavadi taila) along with amritadi churna acts significantly and shows
better result in comparison to oral administration of amritadi churna. The present clinical study has not shown any adverse effects. Extensive clinical study with large number of sample is recommended.

**REFERENCES**

1. Upadhaya Yadu Nandan; Madhav Nidanam; Part–I; Chaukhamba Prakashan, Varanasi, edition 2013 reprint page 509 ;

2. Dr. Byadgi P. S; A text book of Kayachikitsa; Chaukhamba Publications, Vol. – I; New Delhi, p. 124, 125.

3. Dr. Babu S. Suresh; Kayachikitsa, Part – II; Chaukhambha Orientalia; Varanasi


6. Sharma P. V; Cakradutta; A treatise on Principles and Practices of Ayurvedic Medicine; Chaukhamba Publishers; Varanasi.chapter 25, page 229

7. Sharma P. V; Cakradutta; A treatise on Principles and Practices of Ayurvedic Medicine; Chaukhamba Publishers; Varanasi.chapter 25, page 227


10. Upadhyaya Yadu Nandan; Madhav Nidanam; Part–I; Chaukhamba prakashan, Varanasi, edition 2013 reprint page 509 ;


12. Database on medicinal plant used in Ayurveda; vol:3 CCRAS;New Delhi;reprint 2005,p.256-258.

13. Dr. Nadkarni, K.M; Indian Materia Medica;Vol:2; Popular prakashan pvt.Ltd;1976;Bombay,Reprint1993;p.1308

14. Patil Vasant C; principles and practice of Panchakarma; Atrey Ayurveda Publication; p383

**Source of Support: Nil**

**Conflict Of Interest: None Declared**