Clinical Study to evaluate efficacy of Erandamuladi Basti in the management of Amavata w.r.t. Rheumatoid Arthritis

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ABSTRACT

Rheumatoid Arthritis is a chronic autoimmune inflammatory disease that causes pain, stiffness and swelling of the joints. It affects different parts of the body, mainly effects the joints. Amavata (Rheumatoid Arthritis) has been a challenging problem to the medical field. Various treatment protocols are applied in this disease with partial success. In present clinical study, 30 patients of clinically proven Amavata (Rheumatoid Arthritis) were treated with Erandamuladi Basti to evaluate its efficacy. Erandamuladi Basti contains Kwatha Dravyas viz. Erandamula, Rasna, Bala, Devdaru and Sahachar with other Kalka and Prakshepa Dravyas. Ayurvediya Nidanadi parameters and American Rheumatism Association guidelines for Rheumatoid Arthritis were followed. Analysis was done and results were calculated statistically using paired 't' test. Results obtained are encouraging and indicate the efficacy of Erandamuladi Basti over Amavata (Rheumatoid arthritis), exploring many aspects of this clinical entity.

Key words: Amavata, Erandamuladi Basti, Rheumatoid Arthritis.

INTRODUCTION

In Ayurveda, it is explained that Samprapti (pathogenesis) of almost all the diseases begins with the Agnimandya which leads to formation of Aama.[4] This Aama is the utmost important causative factor for various diseases. On other hand, Vata Dosha is most powerful among three Doshas and it controls the other two Doshas as well as it is very difficult for treatment. Therefore, when these two factors (Ama and Vata) simultaneously take part in the Samprapti (pathogenesis), then the resultant disease becomes very difficult to treat. Amavata is one of the most challenging diseases caused by Aama combining with vitiated Vata Dosha. The disease Amavata belongs to Abhyantara as well as Madhyama Roga Marga. The Samprapti (pathogenesis) starts in the Annavaha Srotasa and then extends through Madhyama Roga Marga with special inclination for Kapha Sthanas, especially Sandhis (joints).[2] In such a condition, patient weeps in agony of pain and reduced functional capacity with severe stiffness and crippling deformity of joints, which make them bed ridden. Having several features similar to Rheumatoid arthritis, Amavata is generally compared with this disease. Rheumatoid arthritis is an autoimmune polyarthritis of unknown etiology with symmetrical joint involvement and effects many other systems too. There is no definite cure for the disease.

In Ayurveda, many approaches are in practice to treat Amavata but still remain a challenging problem. Many research works have been done on this disease, but
still there is a need of an effective, safe, and less complicated treatment. In present study, Basti Chikitsa was selected for clinical trials as Basti is the major treatment in Ayurveda which directly acts over the Vata Dosha and many a times is called as Ardha Chikitsa or Sarva Chikitsa.

**OBJECTIVE OF THE STUDY**

To evaluate the efficacy of Erandamuladi Basti in Amavata w.r.t Rheumatoid Arthritis

**Ethical Clearance**

This clinical study was ethically cleared by institutional ethical committee. The drugs used in the study were authenticated by Dravyaguna and Rasashashtra Dept. of D. Y. Patil School of Ayurveda, Nerul, Navi-Mumbai.

**MATERIALS AND METHODS**

**Materials - Erandamulkadi Basti** [4]

<table>
<thead>
<tr>
<th>SN</th>
<th>Dravya</th>
<th>Matra</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Erandmoola</td>
<td>12 Tola</td>
</tr>
<tr>
<td>2</td>
<td>Palasha</td>
<td>12 Tola</td>
</tr>
<tr>
<td>3</td>
<td>Shaliparani</td>
<td>4 Toal</td>
</tr>
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<td>4</td>
<td>Prushanaparni</td>
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<td>5</td>
<td>Bruahati</td>
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<td>6</td>
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<td>7</td>
<td>Gokakshura</td>
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<td>8</td>
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<td>9</td>
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<td>10</td>
<td>Guduchi</td>
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<tr>
<td>11</td>
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<td>4 Tola</td>
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<tr>
<td>12</td>
<td>Amalatash</td>
<td>4 Tola</td>
</tr>
<tr>
<td>13</td>
<td>Devadaru</td>
<td>4 Tola</td>
</tr>
</tbody>
</table>

**METHODS**

- Sample Size: 30
- Type of Study: Single Arm Open Clinical Study
- Basti: Niruhavata
- Dose: 960 ml
- Duration: 8 days
- Parihara Kala: 16 days

**Inclusion criteria**

1. Patients having classical features of Amavata like Angamarda, Aruchi, Trishna, Hrillasa, Gaurava, Jwara, Shula, Shotha etc. were selected for the present clinical research work. Detailed research proforma was prepared incorporating all the clinical features seen in the disease Amavata (Rheumatoid Arthritis).
2. The patients who had fulfilled the revised criteria for Rheumatoid arthritis fixed by the American college of Rheumatology in 1987. Rheumatoid factor positive and negative both cases were included.
3. Age 20-60 yrs

**Exclusion criteria**

- Chronicity of more than 10 years
- Having severe crippling deformity
- Having cardiac disease, pulmonary tuberculosis and pregnant women
- Age less than 18 years and more than 60 years

**Laboratory investigations**

- Rheumatoid Factor (Quantitative) test.[5]
- Erythrocyte Sedimentation Rate by Westergren method
- Serum uric acid (for exclusion)
- X-ray of the affected joint
- Routine urine, blood examination

**Criteria for assessment**

The results of therapy were assessed on the basis of clinical features of the disease Amavata, which are
mentioned in *Ayurvedic* classic as well as with the help of criteria fixed by American Rheumatism Association in 1987. The scoring pattern adopted for assessment of clinical features is as follows:

**Cardinal symptoms**

1. **Sandhi Ruja** (joint pain)
   a. No pain - 0
   b. Mild pain of bearable nature comes occasionally - 1
   c. Moderate pain but no difficulty in joint movements and requires some upashaya measures for relief - 2
   d. Slight difficulty in joint movement due to pain and requires some medication and remains throughout the day - 3
   e. More difficulty in the joint movements and pain is severe, disturbing sleep and requires strong analgesic - 4

2. **Sandhi Shotha** (joint swelling)
   a. No swelling - 0
   b. Mild swelling - 1
   c. Moderate swelling and present in more than 2 affected joints - 2
   d. Excessive swelling over the all affected joints - 3

3. **Stabdhata** (stiffness)
   a. No stiffness or stiffness lasting for 10 to 20 minutes - 0
   b. Stiffness lasting for 20 minutes to 2 hours - 1
   c. Stiffness lasting for 2 to 5 hours - 2
   d. Stiffness lasting for 5 to 8 hours - 3
   e. Stiffness lasting for more than 8 hours - 4

4. **Ushnata** (heat over the affected joints)
   a. Raised temperature when compared with normal body surface - 02
   b. Fall in local warmth - 01
   c. Normal temperature - 00
   d. No change after the treatment - 02

5. **Sparshasahyata** (tenderness about the joints)
   a. No tenderness - 0
   b. Subjective experience of tenderness - 1
   c. Wincing of face on pressure - 2
   d. Wincing of face with withdrawal of affected part on pressure - 3
   e. Resist touching - 4

**General symptoms**

a. Symptoms observed before treatment - 2
b. Some relief after treatment - 1
b. Complete relief after treatment - 0
d. No improvement after treatment - 2

**Overall assessment of the therapy**

To assess the overall effect of the therapy, the criteria laid down by ARA were adopted. Results are classified into four groups as listed below;

a. Complete remission
b. Major improvement
c. Minor improvement
d. Unimproved

**Observation and Results**

Mean, percentage, SD, SE, ‘t’, and P value were calculated. Paired ‘t’ test was used for calculating ‘t’ value, following results were found.

**Table 1: Showing effect of therapy**

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>BT</th>
<th>AT</th>
<th>t</th>
<th>P</th>
<th>Percentag e improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Sandhiruja</em> (Pain)</td>
<td>2.3</td>
<td>1.06</td>
<td>15.42</td>
<td>P&lt;0.0001</td>
<td>53.91%</td>
</tr>
<tr>
<td><em>Sandhi Shotha</em> (Joint swelling)</td>
<td>2.03</td>
<td>0.86</td>
<td>12.04</td>
<td>P&lt;0.0001</td>
<td>57.63%</td>
</tr>
</tbody>
</table>
**DISCUSSION**

Maximum number of patients (40%) belonged to the age group of 31-40 years, which shows its predominance in the middle age group. In this study, numbers of the female patients were (60%) as compared to male (40%). Textual references also reflect the predominance of rheumatoid arthritis in females. Patients with chronicity less than 1 year were 26.66 %, between 1 to 2 years were 43.33 % and more than 2 years were 30 %. Highly significant results (P < 0.001) were obtained in all the cardinal symptoms, Sandhi Ruj (53.91%), Shotha (57.63%), Stabdhat (54.24%), Usnhat (100%), Sparshahat (54.24%).

The improvement in the symptoms of Amavata can be attributed to two major factors i.e. reduction of pain and stiffness in all joints that may be due to analgesic and anti-inflammatory effect of drugs. Pain is inherent quality of Vata. Most of the drugs were Vata Kapha Shamaka having hot potency and oleation property there by pacifies aggravated Vata. Further, these improve the function of Vyana Vayu specifically which is responsible for the movements. Also these drugs are Katu-Tikta Rasatmaka, Ushna Virya helps to digest this Aama resulting in relief of symptoms like stiffness and swelling of joints.⁶

**CONCLUSION**

It can be concluded that Amavata looks similar to Rheumatoid Arthritis in its clinical appearance. The present treatment modality viz. Erandamuladi Basti is found to be effective clinically as well as statistically in the treatment of Amavata. Also, it gives significant results on rheumatoid factor and highly significant result on ESR which is used for diagnosis of rheumatoid arthritis. By combating Vata Dosha and Ama (the chief pathological factors), it lead to Samprapti Vighatana of Amavata and hence, highly significant results were achieved in all the cardinal symptoms. Due to limitation of number of cases and duration of the trial, there is a need to conduct further study in this regard on larger sample and for a longer duration to improve this preliminary study.

**REFERENCES**