A CLINICAL STUDY TO EVALUATE THE EFFICACY OF HINGWADI CHURNA AND RASNADASHMULA KWATHA IN AMAVATA WITH SPECIAL REFERENCE TO RHEUMATOID ARTHRITIS

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ABSTRACT

Amavata or Rheumatoid arthritis is a common disease encountered by physicians in day-to-day life. The disease is cumbersome as young aged people are mostly affected by this. Due to progressive, chronic nature of disease it affects the quality of life of patients and decreases their productivity at work. The article is about the clinical study of 15 patients of Amavata (Rheumatoid arthritis) registered from the O.P.D., P.G. Department of Kayachikitsa, Rishikul Campus Haridwar. The present study is aimed at finding effective treatment of Amavata. The drugs selected for managing the patients of Amavata were Hingwadi Churna and Rasna Dashmula Kwatha. In this clinical study patients got significant improvement and no complications were found during and after the clinical study.

Keywords: Amavata, Rheumatoid arthritis, Hingwadi Churna, Rasna Dashmula Kwatha

INTRODUCTION

Amavata (Rheumatoid arthritis) is a lifestyle disorder which has high prevalence around the globe. Amavata is defined as a condition where Ama and Vata Dosha are vitiated simultaneously and enters the Trika (Pelvic girdle) and Sansh (joints) causing stiffness (Stabdhatu) of the body. Here, Ama means improperly/partially digested food or undigested Rasa Dhatu formed due to poor strength of Agni. Acharya Madhava has described causative factors for the disease as Viruddhabhara (Unwholesome Diet), Viruddhachesta (Erroneous Habits), Mandagni, Sedentary Lifestyle and exercising immediately after food 1. Its symptoms include joint pain like that of scorpion bite, swelling and stiffness in multiple joints with systemic features (Sarvadahika Lakshanas) of Ama like Angamardha (myalgia), Aruchi (anorexia), Trishna (thirst), Alasya (laziness), Gaurav (heaviness), Jwara (pyrexia), Apaaka (indigestion), Anga shanata (oedema). The clinical presentation of Amavata closely mimics with Rheumatoid arthritis (RA), in accordance with their similarities in clinical features like multiple joint pain, swelling, stiffness, fever, general debility etc. Rheumatoid arthritis affects approximately 0.5-1% of the adult population worldwide 2. The incidence of RA increases between 25 and 55 years of age, after which it plateaus until the age of 75 and then decreases 3. Women are affected approx. 3 times more often than men 4. Despite of various treatment measures available in Allopathic system of Medicine the prevalence of the disease is quite high. Moreover, Allopathic drugs have many side-effects thus, adding to the misery of the patients. So, the study was planned for effective management of Amavata by Ayurvedic treatment. Hence, the drugs Hingwadi Churna and Rasna Dashmula Kwatha were selected for clinical evaluation on the management of Amavata.

Aims & objectives

1) To study the aetiopathogenesis of Amavata.
2) To assess the efficacy of Hingwadi Churna and Rasna Dashmula Kwatha on Amavata.

MATERIALS AND METHODS

The study comprised of 15 patients of Amavata. The patients were selected from OPD and IPD of Rishikul campus, Haridwar, India

Ethical clearance- The research has been approved by the Institutional Ethical Committee. Written consent was taken from all the subjects before the trial and study was in accordance with ICH GCP Guidelines.

Selection of Sample: - Randomized Sampling

Type of Study: Single Blind

Duration of Study: 60 days

Selection of Drug

Hingwadi churna - 5 gm b.d. with lukewarm water 1 hour before meal.

Rasna -dashmula kwatha- 40 ml b.d. 1 hour after meal.
Assessment & Follow Up
The assessment of the patients was done at the interval of 15 days & the follow–up was done 1 month after completion of treatment.

Inclusion Criteria
- Patients having classical features of Amavata.
- Age group of 18-60 years.
- Patients fulfilling American College of Rheumatology (ACR) criteria, 1987.
- Both sero-positive and sero-negative cases were included in present study.

Exclusion Criteria
- Chronicity for more than 15 years.
- Having severe crippling deformity.
- Patients with other systemic diseases like Cardiac disease, Tuberculosis, Diabetes mellitus, Hypertension.
- Any other serious medically and surgically ill patients.

Criteria for Assessment
The assessment of the trial was done on the basis of following parameters:

Subjective
1. Visual Analogue Pain Scale
2. Pain Intensity
3. Pain Frequency
4. Pain Duration
5. Gaurav (Heaviness in the body)
6. Jwara (Fever)
7. Sandhishotha (Joint swelling)
8. Apakha (Indigestion)
9. Bhumutratu (Frequency of micturition)
10. Aruchi (Loss of appetite)

Objective
1. Grip strength
2. Foot pressure
3. Goniometry (Range of motion)

Statistical Analysis
Wilcoxon Signed Rank Test was applied on the subjective and functional parameters. Paired t test was applied on Biochemical parameters. Thus, the obtained results were interpreted as:
- P> 0.05 Not Significant
- P< 0.01 & <0.05 significant
- P< 0.001 highly significant

OBSERVATIONS

Table 1: Efficacy study of drugs on subjective parameters

<table>
<thead>
<tr>
<th>Subjective parameters</th>
<th>Median</th>
<th>Wilcoxon Signed Rank W</th>
<th>P-Value</th>
<th>% Effect</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual Analogue Pain Scale</td>
<td>3 1</td>
<td>-3.416*</td>
<td>&lt;0.01</td>
<td>47.5</td>
<td>Significant</td>
</tr>
<tr>
<td>Pain Intensity</td>
<td>3 1</td>
<td>-3.402*</td>
<td>&lt;0.01</td>
<td>60.0</td>
<td>Significant</td>
</tr>
<tr>
<td>Pain Frequency</td>
<td>4 4</td>
<td>-1.732*</td>
<td>&gt;0.05</td>
<td>7.3</td>
<td>Non–Significant</td>
</tr>
<tr>
<td>Pain Duration</td>
<td>4 2</td>
<td>-3.464*</td>
<td>&lt;0.001</td>
<td>50.0</td>
<td>Highly Significant</td>
</tr>
<tr>
<td>Sandhishotha</td>
<td>2 0</td>
<td>-3.355*</td>
<td>&lt;0.01</td>
<td>82.8</td>
<td>Significant</td>
</tr>
<tr>
<td>Gaurav</td>
<td>1 0</td>
<td>-3.213*</td>
<td>&lt;0.01</td>
<td>76.2</td>
<td>Significant</td>
</tr>
<tr>
<td>Jwara</td>
<td>1 0</td>
<td>-2.646*</td>
<td>&lt;0.01</td>
<td>77.8</td>
<td>Significant</td>
</tr>
<tr>
<td>Aruchi</td>
<td>1 0</td>
<td>-2.873*</td>
<td>&lt;0.01</td>
<td>92.8</td>
<td>Significant</td>
</tr>
<tr>
<td>Jadya</td>
<td>2 1</td>
<td>-3.286*</td>
<td>&lt;0.01</td>
<td>58.1</td>
<td>Significant</td>
</tr>
<tr>
<td>Sparhasahayata</td>
<td>1 0</td>
<td>-3.500*</td>
<td>&lt;0.001</td>
<td>77.8</td>
<td>Highly Significant</td>
</tr>
<tr>
<td>Apaka</td>
<td>1 0</td>
<td>-3.025*</td>
<td>&lt;0.01</td>
<td>76.2</td>
<td>Significant</td>
</tr>
<tr>
<td>Bhumutratu</td>
<td>0 0</td>
<td>-2.732*</td>
<td>&gt;0.05</td>
<td>25.0</td>
<td>Non–Significant</td>
</tr>
<tr>
<td>Utsahahani</td>
<td>2 2</td>
<td>-2.000*</td>
<td>&gt;0.05</td>
<td>14.3</td>
<td>Non–Significant</td>
</tr>
</tbody>
</table>
RESULTS AND DISCUSSION

While observing subjective and objective assessment it was found that Statistically highly significant results were found in subjective parameters like Pain duration (p<0.001) and Sparshasahyata (p<0.001) whereas Statistically significant results were found in subjective parameters like Visual Analogue Pain Scale, Pain Intensity, Sandhisotha, Gaurav, Jwara, Jadya, Aruchi & Apaka as value of p<0.01in each. Statistically non-significant results were found in Pain frequency, Bahumutrata and Utsahabani as value of (p>0.05) in each. The percentage relief in all the subjective parameters is as follow – Visual Analogue Pain Scale-47.5%, Pain Intensity-60%, Pain frequency-7.3%, Pain Duration-50%, Sandhisotha-82.8%, Gaurav-76.2%, Jwara-77.8%, Jadya-58.1%, Sparshasahyata-77.8%, Apaka-76.2%, Bahumutrata -25% and Utsahabani-14.3%.

In functional parameters statistically significant results were found in foot pressure -right leg-(p<0.05), foot pressure-left leg (p<0.01) & goniometry (p<0.01). Statistically non-significant results were found in Grip strength of both hands (p>0.05). The percentage relief in functional parameters is as follow -Grip strength (Right hand) -10.7%, Grip strength (Left hand)-13.3%, Foot pressure (Right hand)-75%, Foot pressure (Left hand)-78.6% and Goniometry- 58.1%.

In biochemical parameters statistically highly significant result was found in ESR only(p<0.001). Mean ESR was reduced from 57.5mm/hr before treatment to 33.9mm/hr after treatment. The mean score of Hb was 10.8gm% before treatment which increased to 11.1gm% after treatment which statistically showed significant result (p<0.01). Statistically non-significant result was found in rheumatoid factor (RA Factor) and C-reactive protein (CRP) as value of p>0.05 in both.

Probable mode of action of drugs

**Hingwadi Churna**

The first trial drug “Hingwadi Churna” described by Acharya Chakrapani in Chakradatta in Amavata Chikitsa Adhyaya is a herbal preparation. It has 6 contents namely Hinga, Chavya, Vid Lavana, Shunti, Krishna-Ajaji and Pushkarmula. All these drugs have Katu Rasa and Katu Vipaka except Shunthi which has Katu Rasa & Madhura Vipaka. Due to their Rasa and Vipaka these drugs are Deepan, Rochan and correct the Agni 7. All of these are Kapha –Vata Shamak, thus they subside Kapha and Vata which are the principleDoshas behind Amavata. All of these have Deepan –Pachan properties so they prevent Ama formation. Moreover, Hinga & Krishna Ajaji have analgesic actions and Shunthi, Chavya, Pushkarmula have anti-oxidant & anti-inflammatory properties9. As a whole the combined action of “Hingwadi Churna” can be summarized as Kapha-Vata shamak, Agni -deepan, Ama-pachan, Shulahara and Vednathapana. Thus, the drug was effective in breaking the pathogenesis of Amavata

**Rasna –dashmula kwatha**

The second trial drug is “Rasna-Dashmula Kwatha” described by Acharya Chakrapani in Chakradatta in Amavata Chikitsa Adhyaya. It is also herbal preparation. It contains Dashmula, Guduchi, Eranda-mula, Rasna, Shunti and Devdaru. Dashmula is Tridoshamak, Ama –Pachan and has anti-inflammatory properties. Thus, it not only helps in breaking pathogenesis of disease by preventing Ama formation but it also relieves joint pain, stiffness and swelling. Acharya Sushruta has described it as Sarvajwaranashan so it subsides the fever9. Guduchi present in it is a Rasayana and has anti-oxidant and immuno-modulator properties10. Rheumatoid arthritis is considered an immuno-inflammatory disease so due to its immuno-modulator properties it prevents auto-immune reactions
Amavata is a Kapha- Vata Pradhana Tridosha Vyadhi which has clinical features similar to Rheumatoid Arthritis. Hingwadi Churna due to its contents did Agni Deepan and Anu Pachan. Thus, break the pathogenesis of Amavata. Rasna- Dashmula Kwatha proved very effective in controlling symptoms like Sandhishula (Joint pain), Sandhishotha (Joint swelling), Jwara (Fever), Jaada (Morning stiffness) etc. So, it can be concluded that mild to moderate cases of Amavata (Rheumatoid Arthritis) can be managed effectively without any side-effects by Hingwadi Churna & Rasna-Dashmula Kwatha.

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