

Clinical Study on *Amavata* (Rheumatoid Arthritis) with *Simhanada Guggulu* and *Shatapuspadi Lepa*

Research article

Saroj Kumar Debnath^{1*}, Sudhaben N Vyas²

1. R.O. (Scientist-1) (Ayurveda), Ayurveda Regional Research Institute, Gangtok, Sikkim
2. ExProfessor & Head of the Department of Kayachikitsa, IPGT & RA, GAU, Jamnagar

Abstract

In the present clinical study 46 *Amavata* (Rheumatoid arthritis) patients were registered from the O.P.D. & I.P.D., Department of *Kayachikitsa* (General Medicine), Institute for Post Graduate Teaching & Research in Ayurveda, Gujarat Ayurved University, Jamnagar. 40 patients completed the treatment out of 46 and 6 patients left the treatment before completion of the therapy. The aim of the study was to evaluate the role of selected Ayurvedic medicines on the management of *Amavata* (Rheumatoid arthritis). The treatment schedule was that 1gm *Simhanada guggulu* (Ayurvedic pill medicine) orally thrice in a day with warm water for 45 days & *Shatapushpadi lepa* (Ayurvedic paste medicine) applied locally over affected joints mixed with warm water twice in a day for 45 days. In present clinical study 40 % patients showed major improvement, 50% patients showed minor improvement, 10% patients showed no improvement and no one patient had got complete remission. No adverse drug reaction was found in this clinical study.

Key Words: *Amavata*, Rheumatoid arthritis, Female, 30 to 50 years, *Simhanada guggulu*, *Shatapushpadi lepa*.

Introduction

Amavata is a painful multiple joint involvement chronic systemic disease. In Ayurveda, *Madhava kar* (700AD) mentioned first the *Amavata* as a special disease entity and where *Ama* (biotoxin) as well as *Vata* (biophysical force) plays a predominant role in the *samprapti* (pathogenesis) of the disease *Amavaat* (1). Rheumatoid arthritis is a chronic, progressive autoimmune arthropathy & characterized by bilateral symmetrical

involvement of joints with some systemic clinical manifestations. According to the clinical features, the disease *Amavata* is very closely resembled with the Rheumatoid arthritis.

Ayurveda is an ancient scientific medical knowledge in the world. So many Ayurvedic medicines had been described in the Ayurvedic classical books for the treatment of *Amavata* (Rheumatoid arthritis) (2). *Amavata* (Rheumatoid arthritis) is a most remarkable problem in the society in modern era. The suitable effective treatment of this disease is not available in the modern medicine till now. The national economy is badly affected due to this disease problem as the young aged people are mostly affected by this disease and the patients are gradually crippled both physically and mentally regarding to the worse prognosis of this

*Corresponding Author:

Saroj Kumar Debnath

R.O. (Scientist-1) (Ayurveda)

Ayurveda Regional Research Institute,

31-A National high way, Tadong,

Gangtok-737102, Sikkim, India.

E-mail: sarojkumardebnath@gmail.com

Mob.No: +91-9477404010 or 9748257719

disease. So it draws a major attention nowadays to different research scholars for research purpose. Hence, two important Ayurvedic medicines i.e. Simhanada guggulu & Shatapushpadi lepa had been selected for clinical evaluation on the management of *Amavata* (Rheumatoid arthritis).

Objectives:

- 1) To ameliorate the clinical manifestations of *Amavata* (Rheumatoid arthritis) and increase the work ability.
- 2) To decrease the periodic fluctuation of the disease.
- 3) To evaluate the role of selected Ayurvedic medicines on *Amavata* (Rheumatoid arthritis).

Materials and Methods

Total 46 patients had been registered for the present clinical study as per the criteria for the diagnosis of the disease *Amavata* (Rheumatoid arthritis) and 6 patients had been dropped out from the treatment before the completion of the course. The patients had been selected from the O.P.D. & I.P.D. of Department of *Kayachikitsa* (General Medicine), Institute for Post Graduate Teaching & Research in Ayurveda, Gujarat Ayurved University, Jamnagar, as per the criteria given below:-

Inclusion criteria:

- 1) Patient should be 18 to 60 years.
- 2) The patient who had the clinical manifestations of *Amavata* (Rheumatoid arthritis) according to Ayurvedic classics.
- 3) The patient who had fulfilled the American College of Rheumatology (ASIA), 1987-Reversed criteria for Rheumatoid arthritis (3).

Exclusion criteria:

- 1) Osteoarthritis, Rheumatic arthritis, Traumatic arthritis, Gouty arthritis,

Septic arthritis, Psoriatic arthritis, SLE (Systemic lupus erythematosus).

- 2) Diabetes Mellitus, Hypertension, Tuberculosis, Cardiac problems, Renal problems, Thyroid disorders, Liver problems, HIV and any Malignancy.
- 3) Age below 18 years and above 60 years.

Amavata (Rheumatoid arthritis) was diagnosed on the basis of clinical manifestations as described in Ayurvedic classical books and Modern texts. R-A-factor and C-Reactive-Protein investigations had been done in all the patients for diagnosis and severity of the disease. Routine Blood, Urine and Stool examinations along with Serum uric acid, urea, creatinine, ASO titer, ANF, Lipid profile, Liver function test, ECG, Fasting Blood Sugar had been done to exclude other pathological conditions of the registered patients.

Plan of Study:

40 patients completed the treatment out of registered 46 patients and 6 patients had left the treatment before completion of the treatment. The treatment schedule was **1gm Simhanada Guggulu** (Ayurvedic pill medicine) (4) administered orally thrice in a day with warm water for 45 days and **Shatapushpadi Lepa** (Ayurvedic paste medicine) (5) was applied locally over affected joints mixed with warm water for warm and easy application twice in a day for 45 days.

Some instructions were given to the patient during the therapy those were to avoid cold drinks, ice cream, curds, banana, coconut, black gram, tobacco, smoking, alcohol, alcohol containing other beverages, cold water for bathing, sleep in day time and to use luke warm water for bathing.

Parameters for Assessment:

Following parameters had been taken for the assessment of the clinical study:

I) Assessment on Clinical Features: The relief of the clinical features was assessed on the basis of clinical features of *Amavata* (Rheumatoid arthritis) described in the Ayurvedic classics and criteria fixed by the American Rheumatology Association in 1988 and implemented after some modification. *Sandhishula* (Joint pain), *Sandhishotha* (Joint swelling), *Sandhi-sthabdhata* (Joint stiffness), *Sandhi-sparsha-asahyatva* (Joint tenderness), *Angamarda* (Body ache), *Gaurava* (Heaviness of the Body), *Agni-dourblya* (Impaired digestive capacity) were selected for assessment of clinical features and the scoring pattern was adopted separately for assessment of those clinical features.

II) Assessment on Functional Capacity: Functional capacity was assessed with the following parameters:-

a) Walking time: The patient was asked to walk a distance of 30 feet and the time taken was recorded before and after the treatment by using stop watch.

b) Grip Strength The functional capacity of the affected upper limb, especially for both hands with wrist joints was assessed by the patient's ability to compress an inflated ordinary sphygmomanometer cuff under standard condition (i.e. 20 mmHg) and it was recorded before and after the treatment.

c) Foot pressure: The functional capacity of the affected leg, especially affected ankle with metatarsphalangeal joints was assessed by the foot pressure and it was recorded by pressing a weighing machine before and after the treatment.

III) Assessment on Overall Effect of the Therapy: The overall effect of the therapy was assessed with the help of the criteria collected from ARA (American Rheumatology Association) (1988) and it was implemented in the study after some modification. Results of the clinical study were evaluated in to four groups as follows: **i)** Complete Remission, **ii)** Major

Improvement, **iii)** Minor Improvement & **iv)** No-improvement.

Observations

Maximum numbers of patients i.e. 70.45% belonged to 30 – 50 years of age group. 82.45% patients were female, 85.58 % patients were Hindu (As, Jamnagar is Hindu majority area), 94.86 % patients were Married, 71.15 % patients were Housewives (as, Maximum patients were middle aged female), 65.66 % were coming from Middle class, 73.45 % were in urban habitat, 84.95 % were Educated from primary to graduate level.

Most of the patients i.e. 55.96 % were having Negative Family history, 81.45 % patients were having Gradual Onset, 91.32 % patients were having Relapsing Course and 43.44 % were having Chronicity of less than 2 years. Cold and moist environment was Aggravating factor for all the patients.

In majority of patients i.e. 84.66 % were Vegetarian(as, the diet pattern of Jamnagar people is mainly Veg), 80.51 % patients were Poor Appetite, 44.86 % were *Krura Kostha* (Constipated), 50.25 % were *Vata-Kapha Prakriti* (Vata-Kapha physical constitution) and 55.75 % were *Tamasik Manasik Prakriti* (Tamasik mental constitution). Clinical manifestations of all the patients were aggravated in *Varsha ritu* (Rainy season) & *Shita ritu* (winter season).

Maximum patients i.e. 69.41 % were found in history of *Viruddhahara* (Maldiet habit), 60.53 % patients were found *Viruddhachesta* (Malwork habit) history, 81.53 % were *Divaswapna* (Day sleep habit) history, 36.67 % were *Nishchalatva* (Sedentary habit) and 34.43 % were *Chinta* (Mental stress) history.

Majority of the patients (91.31 %) wrist joint was involved along with

Metacarpophalangeal (82.31 %), Metatarsophalangeal (80.42 %), Ankle (77.23 %), Knee (74.56 %), Elbow (25.57 %), PIP (26.75 %), Shoulder (09.41 %), Hip (6.43 %), Jaw (4.53 %), DIP (6.44 %), Lumbo-sacral (4.32%) and Cervical (2.32%) joints were involved.

C-Reactive-Protein positive was found in 67.54 % patients and R.A. factor positive was found in 24.29 % patients, Rheumatoid nodule was present in 17.21 % patients and Deformity was observed in 2.09 % patients.

According to *Pratyatma Lakshana* (Cardinal clinical features) all the patients were suffering from *Sandhi-shula* (Joint-

pain), *Sandhi-shotha* (Joint-swelling), *Sandhi-stabdhatata* (Joint-stiffness) and *Sandhi-sparshasahyata* (Joint-tenderness).

According to *Samanya Lakshana* (General clinical features) *Angamarda* (body ache), *Gaurava* (heaviness of the body) & *Agni-daurbalya* (impaired digestive capacity) were observed in 67.54 %, 64.67 % & 83.85 % patients respectively.

Results and Discussion

Effect of the therapy on the Clinical features & Functional capacity as well as Overall effect of the therapy are given below:-

Table No.-1: Effect of the therapy on the following Clinical features:

Clinical features	Mean Score		% of Relief	S.D.	S.E.	‘t’	P
	B.T.	A.T.					
<i>Sandhishula</i> (Joint pain)	2.15	1.48	31.39	0.47	0.08	9	<0.001
<i>Sandhishotha</i> (Joint swelling)	1.43	0.78	45.61	0.48	0.08	8.5	<0.001
<i>Sandhi-sthabdhata</i> (Joint stiffness)	2.18	1.40	35.63	0.42	0.07	11.59	<0.001
<i>Sandhi-sparsha-asahyatva</i> (Joint tenderness)	1.78	1.13	36.62	0.48	0.08	8.51	<0.001
<i>Angamarda</i> (Body ache)	2.0	1.15	42.50	0.36	0.06	14.87	<0.001
<i>Gaurava</i> (Heaviness of the Body)	2.0	1.3	35.0	0.46	0.07	9.54	<0.001
<i>Agni-dourblya</i> (Impaired digestive capacity)	2.0	1.03	48.68	0.16	0.03	37.0	<0.001

Table No.-2: Effect of the therapy on the following Parameters of Functional capacity:

Criteria	Mean Score		% of Relief	S.D.	S.E.	‘t’	P
	B.T.	A.T.					
Walking time	12.18	11.00	9.65	0.55	0.09	13.52	<0.001
Grip strength	94.00	98.17	4.44	2.02	0.34	12.20	<0.001
Foot pressure	21.73	23.55	8.40	0.87	0.14	13.21	<0.001

Table No.-3: Overall Effect of the Therapy:

Effects	No. of Patients	Percentage (%)
Complete Remission	00	00
Major Improvement	16	40
Minor Improvement	20	50
No-Improvement	04	10

The results were statistically highly significant ($P < 0.001$) on above cited assessment parameters i.e. Clinical features & Functional capacity in the present clinical study (6).

Overall Effect of the Therapy on the clinical study was evaluated that maximum patients i.e. 40 % showed major improvement, 50 % showed minor improvement, 10 % showed no improvement & complete remission was nil. Probable mode of action of the selected Ayurvedic medicines for this clinical study is shortly discussed according to Ayurvedic view in the below:-

Probable Mode of Action of the drugs:

Compositions of the *Simhanada Guggulu* (Ayurvedic pill medicine) were containing *deepan* (enzyme activating), *ama-pachan* (biotoxin neutralizing), *shothaghna* (oedema reducing), *vedanasthapaka* (analgesic), *jwaraghna* (antipyretic), *balya* (energy enhancing), and *amavatahara* (antirheumatic) e.t.c actions which helped to enhance the *agni-bala* (digestive & metabolic capacity) & to mitigate the *Ama* (biotoxins) as well as to prevent the *Ama* (biotoxins) formation into the body, as a result *Simhanada Guggulu* helped to reduce the clinical manifestations of *Amavata* (Rheumatoid arthritis) and also to break down the *samprapti* (pathogenesis) of *Amavata*. Compositions of the *Shatapushpadi Lepa* (Ayurvedic pest medicine) were containing *shothahara* (oedema reducing) and *vedanasthapak* (analgesic) actions. Hence, *Shatapushpadi Lepa* when used

locally with warm water, it helped to reduce the local pain, swelling, tenderness and stiffness of the affected joints and to break down the *sthanik* (locally) *Samprapti* (pathogenesis) of the disease *Amavata* (Rheumatoid arthritis).

Conclusion:

Lastly it can be concluded with this clinical study that *Amavata* looks similar to Rheumatoid arthritis in its clinical appearance. 30 to 50 years of age group females were mainly affected with this disease and the Ayurvedic treatment was effective in the management of *Amavata* (Rheumatoid arthritis) in the present clinical study and it was happened due to the combined effect of *Simhanada Guggulu* (Ayurvedic pill medicine) and *Shatapushpadi Lepa* (Ayurvedic pest medicine). No complications had been observed in this clinical study & such kind of research work may be designed in future for more conformation to provide the better Ayurvedic treatment on the management of *Amavata* (Rheumatoid Arthritis).

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