



Clinical Study On *Amavata* (Rheumatoid Arthritis) With *Virechen Karma* (Induced Purgation) And *Rasayana* (Rejuvenation) Therapy

Saroj Kumar Debnath^{1*}, *Badri Prasad Shaw*², *Badal Chandra Jana*³

1. Research Officer (Scientist-I) (Ayurveda),
Ayurveda Regional Research Institute, Gangtok, Sikkim,
Unit of Central Council for Research in Ayurvedic Sciences,
Ministry of AYUSH, Government of India.

2. Ex Professor and Head of the Department of Kayachikitsa,
Institute of Post Graduate Ayurvedic Education and Research, Kolkata.
294/3/1, A.P.C. Road, Kolkata-700009

3. Professor, Department of Rognidan,
Institute of Post Graduate Ayurvedic Education and Research, Kolkata.
294/3/1, A.P.C. Road, Kolkata-700009

***Corresponding Author: Saroj Kumar Debnath,**
Research Officer (Scientist-I) (Ayurveda),
Ayurveda Regional Research Institute, Gangtok,
31-A National high way, Tadong, Gangtok-737102, Sikkim, India.
E-mail: sarojkumardebnath@gmail.com

ABSTRACT

In the present clinical study 32 *Amavata* (Rheumatoid arthritis) patients were registered from the O.P.D. & I.P.D., Department of *Kayachikitsa*, Institute of Post Graduate Ayurvedic Education and Research, Kolkata. 30 patients completed the treatment out of 32 and 2 patients dropped out. The aim of the study was to evaluate the role of Ayurvedic management on *Amavata* (Rheumatoid arthritis). The treatment schedule was *Sneha pana* (Orally intake of Ayurvedic medicated oil), *Niragnik swedana* (Sweating by without heat), *Virechan karma* (Induced purgation by Ayurvedic procedure) and *Vardhaman Pippali Rasayan sevan* (Rejuvenation with orally intake of *Piper longum* mature dried fruit powder in gradual increased and decreased dose). In this clinical study 70% patients got major improvement, 30% patients got minor improvement, no improvement was nil and no one patient had got complete remission. Any complication was not found in this clinical study.

Key words: *Amavata*, Rheumatoid arthritis, Female, 30 to 50 years of age, *Virechan karma*, *Rasayana*.

INTRODUCTION

Rheumatoid arthritis is a chronic, progressive autoimmune arthropathy and characterized by bilateral symmetrical involvement of joints with some systemic clinical features¹. *Madhava kar* (700AD) mentioned first the *Amavata* as a special disease entity in Ayurveda and where *Ama* (biotoxin) as well as *Vata* (biophysical force or kinetics) plays a predominant role in the *samprapti* (pathogenesis) of the disease *Amavata*². According to the clinical features, the disease *Amavata* very closely resembles with the Rheumatoid arthritis. In modern era Rheumatoid arthritis is a most burning problem in the society. Till now the suitable effective treatment of this disease is not available in the modern medicine. In this disease young aged peoples are mostly affected and the patients are gradually crippled physically as well as mentally due to bad prognosis of the disease. Nowadays it draws major attention to the different scholars for research purpose. Ayurveda is an ancient scientific medical knowledge in the world. So many Ayurvedic managements had been described in the different Ayurvedic classical books for the treatment of *Amavata* (Rheumatoid arthritis). Such Ayurvedic management i.e. *Sneha pana* (Orally intake of Ayurvedic medicated

oil), *Niragnik swedana* (Sweating by without heat), and *Virechan karma* (Induced purgation by Ayurvedic procedure)³ and *Vardhaman Pippali Rasayan sevan* (Rejuvenation with orally intake of *Piper longum* mature dried fruit powder in gradual increased and decreased dose) after some dose modification had been selected for this clinical study on the management of *Amavata* (Rheumatoid arthritis)⁴.

Aims & Objectives:

- To ameliorate the clinical features of *Amavata* (Rheumatoid arthritis) and increase the work ability.
- To minimize the periodic fluctuation of the *Amavata* (Rheumatoid arthritis).
- To assess the effect of selected Ayurvedic management on *Amavata* (Rheumatoid arthritis).

MATERIALA & METHODS

Total numbers of 32 *Amavata* (Rheumatoid-arthritis) patients were registered for the present clinical study as per the criteria for the diagnosis of the disease and 2 patients were dropped out from the treatment before the completion of the therapy. The patients were selected from the O.P.D. and I.P.D. of Department of *Kayachikitsa*, Institute of Post Graduate Ayurvedic Education and Research, Kolkata, according to following inclusion and exclusion criteria:-

Inclusion criteria:

- Patient between 18 to 60 years of age of both sexes.
- The patient having the clinical features of *Amavata* according to Ayurvedic classics.
- The patient who fulfilled the revised criteria for Rheumatoid arthritis fixed by the American College of Rheumatology in 1987⁵.

Exclusion criteria:

- Osteoarthritis, Rheumatic arthritis, Septic arthritis, Gouty arthritis, Psoriatic arthritis, Traumatic arthritis, SLE (Systemic lupus erythematosus).
- Diabetes Mellitus, Hypertension, Tuberculosis, Thyroid disorders, Cardiac problems, Renal problems, Liver problems, HIV and any Malignancy.
- Age below 18 years and above 60 years.

Study design: The *Amavata* (Rheumatoid arthritis) patient was diagnosed on the basis of clinical features as described in Ayurvedic 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. 30 patients completed the treatment out of registered 32 patients and 2 patients had left the treatment before completion of the treatment. The treatment schedule was *Sneha pana* (orally intake of Ayurvedic medicated oil), *Niragnik swedana* (Sweating by without heat), *Virechan karma* (Induced purgation by Ayurvedic procedure) and *Vardhaman Pippali Rasayan sevan* (Rejuvenation with orally intake of *Piper longum* mature dried fruit powder in gradual increased and decreased dose) respectively. *Sneha pana* was done by taking orally of *Murcchit Til taila* (Sesame oil is processed with Ayurvedic medicinal plants in Ayurvedic procedure) with different doses i.e. 20 ml to 120 ml for 3 to 7 days in empty stomach according to the *rogi bala* (general condition of the patient) and *roga bala* (stage of the disease). *Niragnik swedana* was done with *Guru pravaran* in the morning (cover the whole body of the patient with blanket for good sweating). *Virechan karma* was done with *Eranda taila pana* (orally intake of castor oil i.e. *Ricinus communis*) in the dose of 30 ml to 80 ml with luke warm water for one day on the basis of *rogi bala*, *roga bala* and *kostha* (bowel habit) and then *Samsarjan karma* (post virechan karma management) for 3 to 7 days on the basis of *rogi bala* and *roga bala* and lastly followed *Vardhaman Pippali Rasayan sevan* therapy after some modification of its dose i.e. orally intake of *Pippali churna* (mature and dried fruit powder of *Piper longum*) was started the dose from 250 mg twice in a day with 5 ml *Madhu* (honey) after lunch and dinner (i.e. b.d.p.c.) on the first day. It was increased by 125 mg in each dose daily up to the maximum dose of 1375 mg twice in a day within 10 days and then it was tapered by 125 mg daily in each dose up to initial dose of 250 mg twice in a day for further 10 days. Total *Vardhaman Pippali Rasayan sevan* therapy was done for 20 days. The dose schedule of *Vardhaman Pippali Rasayan sevan* therapy which was administered in the present study is given in the table No. 1:-

Table-1: - Dose schedule of Vardhaman Pippali Rasayan therapy

Day	Dose
1 st	250 mg <i>Pippali churna</i> mixed properly with 5 ml honey twice daily after lunch and dinner (i.e. b.d.p.c.)
2 nd	375 mg <i>Pippali churna</i> with 5 ml honey b.d.p.c.
3 rd	500 mg <i>Pippali churna</i> with 5 ml honey b.d.p.c.
4 th	625 mg <i>Pippali churna</i> with 5 ml honey b.d.p.c.
5 th	750 mg <i>Pippali churna</i> with 5 ml honey b.d.p.c.
6 th	875 mg <i>Pippali churna</i> with 5 ml honey b.d.p.c.
7 th	1000 mg <i>Pippali churna</i> with 5 ml honey b.d.p.c.
8 th	1125 mg <i>Pippali churna</i> with 5 ml honey b.d.p.c.
9 th	1250 mg <i>Pippali churna</i> with 5 ml honey b.d.p.c.
10 th	1375 mg <i>Pippali churna</i> with 5 ml honey b.d.p.c.
11 th	1375 mg <i>Pippali churna</i> with 5 ml honey b.d.p.c.
12 th	1250 mg <i>Pippali churna</i> with 5 ml honey b.d.p.c.
13 th	1125 mg <i>Pippali churna</i> with 5 ml honey b.d.p.c.
14 th	1000 mg <i>Pippali churna</i> with 5 ml honey b.d.p.c.
15 th	875 mg <i>Pippali churna</i> with 5 ml honey b.d.p.c.
16 th	750 mg <i>Pippali churna</i> with 5 ml honey b.d.p.c.
17 th	625 mg <i>Pippali churna</i> with 5 ml honey b.d.p.c.
18 th	500 mg <i>Pippali churna</i> with 5 ml honey b.d.p.c.
19 th	375 mg <i>Pippali churna</i> with 5 ml honey b.d.p.c.
20 th	250 mg <i>Pippali churna</i> with 5 ml honey b.d.p.c.

According to the Ayurvedic conception some important instructions were given to the patient during the management those were to avoid cold drinks, ice cream, curds, banana, coconut, black gram, tobacco, smoking, alcohol, alcohol containing other beverages, cold water for bathing and drinking, sleep in day time. To use luke warm water for bathing and drinking ⁶.

Assessment parameters: Three assessment parameters were adopted for this clinical study which were as follows:-

(I) Assessment of Clinical Features: The progress of clinical features of *Amavata* (Rheumatoid arthritis) patients of the present clinical study was assessed on the basis of common important clinical features of *Amavata* which are mentioned in Ayurvedic classics as well as features are closely resembled with Rheumatoid arthritis and also with the help of criteria fixed by the American Rheumatology Association in 1988 and implemented it after some modification. *Sandhishhula* (Joint pain), *Sandhishotha* (Joint swelling), *Sandhi-stabdhata* (Joint stiffness), *Sandhi-sparsha-asahyatva* (Joint tenderness), *Angamarda* (Body ache), *Gaurava* (Heaviness of the Body), *Agni-dourblya* (Impaired digestive capacity) were selected as common important clinical features of *Amavata* for this study and the scoring pattern was adopted separately for assessment of those clinical features.

(II) Assessment of Functional Capacity: Functional capacity of the patients was assessed by the help of three parameters which were (a) **Walking time:** The patients were asked to walk a distance of 50 feet and the time taken was recorded before and after the treatment with stop watch. (b) **Grip Strength:** The patients were asked to compress an inflated ordinary sphygmomanometer cuff with the help of affected hands under

standard condition of pressure (i.e. 20 mmHg) to measure the functional capacity of the affected upper limb, especially for both hands and wrist joints and it was recorded before and after the treatment. (c) **Foot pressure:** The patients were asked to press the weighing machine with the help of affected leg to measure the functional capacity of the affected lower limb (especially affected ankle joint and foot) and it was recorded before and after the treatment.

(III) Assessment of Overall Effect of the Therapy: The overall effect of the therapy or treatment of the present clinical study was assessed with the help of the criteria adopted from ARA (American Rheumatology Association) (1988) and it was implemented in the present study after some modification. Results of the present clinical study were classified in to four groups those were: a) Complete Remission, b) Major Improvement, c) Minor Improvement and d) No-improvement.

OBSERVATIONS

Most of the patients i.e. 62.15 % belonged to 30 – 50 years of age group. 81.25% patients were Female, 76.36 % patients were Hindu, 93.68 % patients were Married, 70.04 % patients were Housewives (as, maximum patients were middle aged female), 85.63 % were Educated from primary to graduate level, 82.46 % were non-vegetarian, 65.68 % were coming from Middle class, 72.26 % were in urban habitat. Maximum patients i.e. 54.78 % were having Negative Family history, 80.25 % patients were having Gradual Onset, 92.35 % patients were having Relapsing Course and 44.46 % were having Chronicity of less than 2 years, 80.21 % patients were of Poor Appetite, 43.66 % were *Krura Kostha* (Constipated). All the patients suffered more in *Varsha ritu* (Rainy season) & *Shita ritu* (winter season). Cold and moist environment was Aggravating factor for all the patients.

C-Reactive-Protein positive was found in 68.55% patients and it expresses the percentage of severe case in the study, R.A. factor positive was found in 23.31% patients and it supports the criteria of Rheumatoid arthritis by the American Rheumatology Association in 1988 that R. A. Factor positive is not a compulsory criteria for Rheumatoid arthritis, Rheumatoid nodule and Deformity were observed in 19.13% and 4.06% patients respectively.

In majority of patients (92.33%) wrist joint was involved along with Metacarpophalangeal (83.13%), Metatarsphalangeal (81.47%), Ankle (81.04%), Knee (72.36%), Elbow (24.37%), PIP (25.55%), Shoulder (10.21%), Hip (3.45%), Jaw (3.33%), DIP (6.33%), Lumbo-sacral (4.41%) and Cervical (2.32%) joints were involved.

According to *Samanya Lakshana* (General clinical features) *Angamarda* (body ache), *Gaurava* (heaviness of the body) and *Agni-daurbalya* (impaired digestive capacity) were observed in 68.34%, 63.47% and 82.65% patients respectively.

According to *Pratyatma Lakshana* (Cardinal clinical features) all the patients were suffering from *Sandhishula* (Joint-pain), *Sandhi-shotha* (Joint-swelling), *Sandhi-stabdhatata* (Joint-stiffness) and *Sandhi-sparshasahyata* (Joint-tenderness).

RESULTS AND DISCUSSION

Table 2: - 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)	2.19	0.77	64.67	0.48	0.06	16	<0.001
<i>Sandhishotha</i> (Joint swelling)	1.91	0.73	61.01	0.36	0.04	18.30	<0.001
<i>Sandhi-stabdhatata</i> (Joint stiffness)	2.21	0.78	66.27	0.48	0.06	18.43	<0.001
<i>Sandhi-sparsha-asahyatva</i> (Joint tenderness)	2.01	0.73	62.94	0.43	0.05	17.81	<0.001
<i>Angamarda</i>	2.2	0.71	65.40	0.49	0.09	17.49	<0.001

(Body ache)							
Gaurava (Heaviness of the Body)	2.2	0.82	60.03	0.43	0.08	18.75	<0.001
Agni-dourblya (Impaired digestive capacity)	2.2	0.95	53.77	0.29	0.06	25.51	<0.001

Table 3: - 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	12.63	10.63	15.79	0.21	0.02	55.87	<0.001
Grip strength	88.73	97.73	10.12	5.48	0.85	10.31	<0.001
Foot pressure	19.76	22.58	14.27	0.85	0.12	20.43	<0.001

Table 4: - Overall effect of the therapy

Effects	No. of Patients	Percentage (%)
Complete Remission	00	00
Major Improvement	21	70
Minor Improvement	09	30
No-Improvement	00	00

In this clinical study all the results were statistically highly significant ($P < 0.001$) on the parameters of Clinical features and Functional capacity which are shown in Table 2 and Table 3 respectively ⁷. Overall Effect of the Therapy which is shown in Table 4 expresses that maximum patients i.e. 70 % showed major improvement and 30 % showed minor improvement. No improvement and complete remission were nil. No adverse effect had been observed in this clinical study. Probable mode of action of the Ayurvedic management of this present clinical study is that *Murchit Til taila* has *vata-kpha-samak* (aggravated vata-kapha dosha reducing), *deepan* (enzyme activating), *ama-pachan* (biotoxin neutralizing) property ; *Eranda taila* has *vata-kapha-samak Amavatahara* (antirheumatic) property; *Niragnik Swedana* has *vedanasthapana* (analgesic), *gaurabatanasak* (heaviness of body reducing), *stabdhatanasak* (stiffness of body reducing), *shothaghna* (oedema reducing), *vata-kapha-samak* property; *Virechan karma* is *prokapita dosha nisharak* (vitiated dosha or bio-toxin eliminating); *Pippali churna* (mature and dried *Piper Longum* fruit powder) has *deepan* (enzyme activating), *ama-pachan* (biotoxin neutralizing), *jwaragna* (antipyretic), *shulahara* (pain reducing), *vata-kapha-samak*, *Rasayana* (Rejuvenation) property and *madhu* (honey) has *lekhan* (scraping), *balya* (energy enhancer), *kapha-samak* (aggravated kapha dosha reducing), *yogavahi* (co-ingredient property adopting capacity), *sukshma* (minute channel entering capacity) property. *Vardhaman Pippali sevan* is a *Rasayan* (Rejuvenation) therapy that means it improves the body immunity and as a result it prevents the relapse of the disease as well as restores the affected muscle power and joint functions. Hence, these combined therapy of Ayurvedic treatment helped to reduce the manifestations of *Amavata* and to break down the *samprapti* (pathogenesis) of *Amavata*.

CONCLUSION

It can be concluded of the present clinical study that *Amavata* looks similar to Rheumatoid arthritis on the basis of its clinical appearance and pathogenesis; 30 to 50 years age group of females were mainly affected with this disease and the Ayurvedic management was satisfactory effective in the treatment of *Amavata* (Rheumatoid arthritis). It was happened most probably due to the combined effect of *Snehapan* (Orally intake of Ayurvedic medicated oil), *Niragnik swedana* (Sweating by without heat), *Virechan karma*

(Induced purgation by Ayurvedic procedure) and *Vardhaman Pippali Rasayan sevan* (Rejuvenation with orally intake of *Piper longum* mature dried fruit powder in gradual increased and decreased dose) therapy. No complications had been found in the present clinical study.

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