



CLINICAL STUDY ON *VIRECHAN KARMA* (INDUCED PURGATION) IN THE MANAGEMENT OF *AMAVATA* (RHEUMATOID ARTHRITIS)

Saroj Kumar Debnath^{1*}, Badri Prasad Shaw², Badal Chandra Jana³

1. Research Officer (Scientist-I) (Ayurveda),
Ayurveda Regional Research Institute, Gangtok, Sikkim,
Unit of Central Council for Research in Ayurvedic Sciences, Department of AYUSH,
Ministry of Health & Family welfare, 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.

ABSTRACT

In this clinical study 34 *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 34 and 4 patients left the treatment before completion of the therapy. The aim of the study was to evaluate the role of Ayurvedic management on *Amavata* (Rheumatoid arthritis). The treatment schedule was *Sneha pana* (Intake of Ayurvedic medicated oil), *Niragnik swedana* (Sweating by without heat), and *Virechan karma* (Induced purgation). In present clinical study 60 % patients got major improvement, 40 % patients got minor improvement, no improvement was nil and no one patient had got complete remission. No adverse reaction was found in this clinical study.

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

INTRODUCTION

In Ayurveda, *Madhava kar* (700AD) mentioned first the *Amavata* as a special disease entity and where *Ama* (biotoxin) as well as *Vata* (biophysical force or kinetics) plays a predominant role in the *samprapti* (pathogenesis) of the disease *Amavata*¹. Rheumatoid arthritis is a chronic, progressive autoimmune arthropathy and characterized by bilateral symmetrical involvement of joints with some systemic clinical manifestations². According to the clinical manifestations, the disease *Amavata* very closely resembles with the Rheumatoid arthritis. Rheumatoid arthritis is a most burning problem in the society in modern era. The suitable effective treatment of this disease is not available in the modern medicine till now. The young aged people are mostly affected by this disease and the patients are gradually crippled both physically as well as mentally due to worse prognosis of the disease. So it draws a major attention nowadays to different scholars for research purpose. Ayurveda is an ancient scientific medical knowledge in the world. So many Ayurvedic managements had been described in the Ayurvedic classical books for the treatment of *Amavata* (Rheumatoid arthritis). Such Ayurvedic management i.e. *Sneha pana* (Intake of Ayurvedic medicated oil), *Niragnik swedana* (Sweating by without heat), and *Virechan karma* (Induced purgation) had been selected for this clinical study on the management of *Amavata* (Rheumatoid arthritis)³.

Aims & Objectives: a) To reduce clinical manifestations of *Amavata* (Rheumatoid arthritis) and increase the work ability of the patient of *Amavata* (Rheumatoid arthritis). b) To minimize periodic fluctuation of

Amavata (Rheumatoid arthritis). c) To assess the effect of selected Ayurvedic management on *Amavata* (Rheumatoid arthritis).

MATERIALA AND METHODS

Total numbers of 34 *Amavata* (Rheumatoid-arthritis) patients were registered for the present clinical study as per the criteria for the diagnosis of the disease and 4 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 as per following criteria:-

Inclusion criteria: a) Patient between 18 to 60 years of both sexes. b) The patient having the clinical manifestations of *Amavata* according to Ayurvedic classics. c) The patient who fulfilled the revised criteria for Rheumatoid arthritis fixed by the American College of Rheumatology in 1987⁴.

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

Plan of Study: The *Amavata* (Rheumatoid arthritis) was diagnosed on the basis of clinical manifestations 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 34 patients and 4 patients had left the treatment before completion of the treatment. The treatment schedule was *Sneha pana* (Intake of Ayurvedic medicated oil) by taking 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 according to the *rogi bala* (general condition of the patient) and *roga bala* (stage of the disease), *Niragnik swedana* (Sweating by without heat) with *Guru pravaran* (cover the whole body of the patient with blanket), *Virechan karma* (Induced purgation) was done with *Eranda taila pana* (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*.

Some important instructions according to Ayurvedic view 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. To use luke warm water for bathing⁵.

Assessment parameters: Three assessment parameters were adopted for the present clinical study which were (I) **Assessment of Clinical Manifestations:** The progress of clinical manifestations of *Amavata* (Rheumatoid arthritis) patients of this clinical study was assessed on the basis of important common clinical features of *Amavata* which are mentioned in Ayurvedic classics as well as closely resembles 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), *Sandhishhotha* (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 important common clinical manifestations of *Amavata* for this study and the scoring pattern was adopted separately for assessment of those clinical manifestations. (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 by using stop watch. (b) **Grip Strength:** The patients were asked to compress an inflated ordinary sphygmomanometer cuff with 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 by affected leg to measure the functional capacity of the affected lower limb (especially

affected ankle 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 management of this clinical study was assessed with the help of the criteria adopted from ARA (American Rheumatology Association) (1988) and it was implemented in this clinical study after some modification. Results of this clinical study were classified in to four groups those were: a) Complete Remission, b) Major Improvement, c) Minor Improvement and d) No-improvement.

OBSERVATIONS

Maximum patients i.e. 66.25 % belonged to 30 – 50 years of age group. 83.35% patients were female, 86.46 % patients were Hindu (As, Jamnagar is Hindu majority area), 95.78 % patients were Married, 72.05 % patients were Housewives (as, Maximum patients were middle aged female), 67.78 % were coming from Middle class, 74.36 % were in urban habitat, 87.83 % were Educated from primary to graduate level. Majority of patients i.e. 56.88 % were having Negative Family history, 82.35 % patients were having Gradual Onset, 94.45 % patients were having Relapsing Course and 46.56 % were having Chronicity of less than 2 years. Cold and moist environment was Aggravating factor for all the patients.

Most of the patients i.e. 85.56 % were Vegetarian (as, the diet pattern of Jamnagar people is mainly Veg), 81.41 % patients were of Poor Appetite, and 45.76 % were Krura Kostha (Constipated). All the patients suffered more in Varsha ritu (Rainy season) & Shita ritu (winter season).

C-Reactive-Protein positive was found in 70.65% patients and it expresses the percentage of severe case in the study, R.A. factor positive was found in 25.41% 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 was present in 21.23% patients and Deformity was observed in 6.16% patients.

In majority of patients (94.43%) wrist joint was involved along with Metacarpophalangeal (85.23%), Metatarsphalangeal (83.57%), Ankle (82.14%), Knee (74.46%), Elbow (26.47%), PIP (27.65%), Shoulder (11.31%), Hip (5.55%), Jaw (4.43%), DIP (7.43%), Lumbo-sacral (5.43%) and Cervical (2.43%) joints were involved.

According to *Samanya Lakshana* (General clinical features) *Angamarda* (body ache), *Gaurava* (heaviness of the body) & *Agni-daurbalya* (impaired digestive capacity) were observed in 70.44%, 65.57% & 84.75% patients respectively.

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

RESULTS AND DISCUSSION

Table 1-Effect of the therapy on the following Clinical manifestations

Clinical features	Mean Score		% of Relief	S.D.	S.E.	't'	P
	B.T.	A.T.					
<i>Sandhishula</i> (Joint pain)	2.13	1.46	31.37	0.45	0.06	8.4	<0.001
<i>Sandhishotha</i> (Joint swelling)	1.41	0.76	45.59	0.46	0.06	8.3	<0.001
<i>Sandhi-sthabdhata</i> (Joint stiffness)	2.16	1.38	35.61	0.40	0.05	11.57	<0.001
<i>Sandhi-sparsha-asahyatva</i> (Joint tenderness)	1.76	1.11	36.60	0.46	0.06	8.49	<0.001
<i>Angamarda</i> (Body ache)	2.20	1.17	42.52	0.38	0.08	14.89	<0.001
<i>Gaurava</i> (Heaviness of the Body)	2.20	1.50	35.2	0.48	0.09	9.56	<0.001
<i>Agni-dourblya</i> (Impaired digestive capacity)	2.20	1.05	48.70	0.18	0.05	37.02	<0.001

Table 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	12.20	11.02	9.67	0.57	0.11	13.54	<0.001
Grip strength	94.02	98.19	4.46	2.04	0.36	12.22	<0.001
Foot pressure	21.75	23.57	8.42	0.89	0.16	13.23	<0.001

Table 3-Overall effect of the therapy

Effects	No. of Patients	Percentage (%)
Complete Remission	00	00
Major Improvement	18	60
Minor Improvement	12	40
No-Improvement	00	00

All the results were statistically highly significant ($P < 0.001$) in this clinical study on the parameters of Clinical manifestations and Functional capacity which are shown in Table 1 and Table 2 respectively⁶. Overall Effect of the Therapy which is shown in Table 3 evaluates that maximum patients i.e. 60 % showed major improvement and 40 % showed minor improvement. No improvement and complete remission were nil. No adverse effect had been found in this clinical study. Probable mode of action of this Ayurvedic management of the present clinical study is that *Murchit Til taila* is *vata-kpha-samak* (vata-kapha reducing), *deepan* (enzyme activating), *ama-pachan* (biotoxin neutralizing); *Eranda taila* is *vata-kapha-samak*, *Amavatahara* (antirheumatic); *Niragnik Swedana* is *vedanasthapaka* (analgesic), *gaurabatanasak* (heaviness of body reducing), *stabdhatanasak* (stiffness of body reducing), *shothaghna* (oedema reducing), *vata-kapha-samak* and *Virechan karma* is *prokapita dosha nisharak* (vitiated *dosha* or bio-toxin eliminating) property. Hence, these combined procedures of Ayurvedic management helped to reduce the manifestations of *Amavata* and to break down the *samprapti* (pathogenesis) of *Amavata*.

CONCLUSION

It can be concluded that *Amavata* is more simulated to Rheumatoid arthritis because clinical manifestations of *Amavata* and Rheumatoid arthritis are more or less same; 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) in this clinical study and it was happened due to the combined effect of *Snehapan*, *Niragnik swedana* and *Virechan karma*. No complications had been observed in this clinical study.

ACKNOWLEDGEMENT

Authors are grateful to the Principal of Institute of Post Graduate Ayurvedic Education and Research, Kolkata and also grateful to the patients who had participated in the clinical study, other experts and staff for their continuous support and cooperation for this clinical study.

REFERENCES

- 1 Madhavakara, Rakshita V, Dutta S, Shastri S, Upadhyaya Y. Madhava Nidana (Madhukokosha Vyakya with Vidyotini Hindi Commentary), Ed 26, Part. I, Chaukhambha Sanskrit Sanathana, Varanasi, 1996, 460-464.
- 2 Harrison TR, Anthony S. Fauci et al. Harrison's Principles of Internal Medicine, Ed 14, Vol. 2, McGraw Hill, New York, 1998, 1885.
- 3 Chakrapanidutta, Sengupta D, Sengupta U, Sensharma K, Bhattacharya S. Chakradutta, Amavata Chikitsa, Ed 1, Deepayan, Kolkata, 1999, 138-141.
- 4 Harrison TR, Anthony S. Fauci et al. Harrison's Principles of Internal Medicine, Ed 14, Vol. 2, McGraw Hill, New York, 1998, 1885.
- 5 Govindadas, Sengupta V, Sensharma K, Bhattacharya S. Bhaishajya Ratnavali, Amavatadhikar, Tiritiya khand, Ed 1, Deepayan, Kolkata, 2000, 44-54.

- 6 Das D, Das A. Statistics in Biology and Physiology, Ed 4, Academic Publishers, Kolkata, 2005, 1-137.