

CLINICAL EVALUATION OF AMAVATA (RHEUMATOID ARTHRITIS) WITH NATUROPATHY MANAGEMENT

Saroj Kumar Debnath^{1*}, Dash SC², Vyas GJ³

1. Research Officer (Scientist-I) (Ayurveda), Ayurveda Regional Research Institute, Gangtok, Sikkim, India.
2. Ex. Principal, Maharshi Patanjali Institute for Yoga Naturopathy Education and Research, Gujarat Ayurved University, Jamnagar, Gujarat, India.
3. Ex. Co-ordinator & Assistant Physician, Maharshi Patanjali Institute for Yoga Naturopathy Education and Research, Gujarat Ayurved University, Jamnagar, Gujarat, India.

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Abstract

The clinical study was aimed to evaluate the efficacy of Naturopathy management on Amavata (Rheumatoid arthritis). 45 Amavata (Rheumatoid arthritis) patients were registered from the O. P. D. and 5 patients discontinued before completion of the treatment. Certain Naturopathy processes, i.e. Mudpack application, Prayer, Exercise of stretching & rotations, Breathing exercise, Relaxation, Hip bath, Shiatsu massage, Acupressure, Warm sand & Infrared ray application, Small & mild vibrator and Diet planning systemically followed for continuous three weeks (21 days) for every day morning in empty stomach and also followed tentative planning of Fast for 1st week. In the study, maximum patient, i.e. 55 % showed major improvement, 40% showed minor improvement, 05% showed no improvement and complete remission was nil. No complication was observed in the clinical study.

Keywords: Amavata; Rheumatoid arthritis; Female 30 to 50 years; Naturopathy management.

*Address for correspondence:

Dr. Saroj Kumar Debnath,
Research Officer (Scientist - I) (Ayurveda),
Ayurveda Regional Research Institute, Gangtok,
Tadong, Gangtok, Sikkim, India – 737 102.
E-mail: sarojkumardebnath@gmail.com

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INTRODUCTION

Madhavakar (700AD), in Ayurvedic Pathological book Madhava nidana, 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 pathogenesis or samprapti of this disease.^[1] Amavata disease may be simulated with Rheumatoid arthritis, which is a chronic but active inflammatory arthropathy according to modern medicine. The disease Amavata or 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 because the young aged people are mostly affected by this disease and the patients are gradually crippled both physically as well as psychologically regarding to the bad prognosis of this disease. So, it draws a major attention now a day to different scholars for research purpose.

Till now, the aetopathogenesis of this disease is not known precisely but among the hypothesis, entero-pathy is an important role regarding this disease and this hypothesis finds support from Indian medicine also.^[2] The famous Ayurvedic Nidana book (Pathology book) Madhava nidana clearly mentions the nidana (etiological factors) of Amavata are Viruddhaahara (maldiet habit), Viruddhachesta (malwork habit), Mandagni (impaired digestive capacity), Nischalavastha (sedentary habit) & Vyayam (physical work) immediately after intake of oily heavy meal.^[3]

According to modern medicine the Rheumatoid arthritis is a chronic, progressive autoimmune arthropathy and characterized by bilateral symmetrical involvement of joints with some systemic clinical manifestations. The treatment of this disease with modern medicine is mainly

symptomatic and the adverse effects of the modern medicine are also intolerable and so the current treatment status regarding the Rheumatoid arthritis with modern medicine is not satisfactory.

Naturopathy is the art of living according to the nature & also drugless natural way of living. The certain processes are mentioned in the Naturopathy, which are very much effective for promotion of physical & mental wellbeing as well as maintenance of good physical & mental health.^[4] It is also helpful in the prevention & cure of the different chronic disease.^[5] Such Naturopathy management is more natural, drug less, less complicated & less cost effective. So, on the basis of this view Naturopathy management had been selected for the treatment of Amavata (Rheumatoid arthritis) in this clinical study.^[6]

Aim and objectives

- To ameliorate the clinical features of Amavata (Rheumatoid arthritis) and increase the work ability.
- To minimize the periodic fluctuation of the disease.
- To assess the effect of the Naturopathy procedures in the management of the Amavata (Rheumatoid arthritis).

MATERIAL AND METHODS

Forty five patients fulfilled the criteria for the diagnosis of the disease Amavata (Rheumatoid arthritis) and were registered for the present clinical study irrespective of their age, sex, religion. Among them, 5 patients were dropped out from the treatment before the completion of the therapy. The patients were selected from the O.P.D. as per following criteria:

I) Inclusion criteria

- Patient between 18 to 60 years of both sexes.
- The patient who fulfilled the clinical features of *Amavata* (Rheumatoid arthritis) according to Ayurvedic classics.
- The patient who fulfilled the American College of Rheumatology (ASIA), 1987-Reversed criteria for Rheumatoid arthritis.^[7]

II) 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 disease was diagnosed on the basis of signs and symptoms as described in Ayurvedic and Modern texts, aided by the revised criteria for Rheumatoid arthritis fixed by the American College of Rheumatology in 1987. 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 also done to rule out other pathological conditions of the registered patients. The selected *Amavata* (Rheumatoid arthritis) patients were treated by Naturopathy management for three weeks (i.e. 21 days) and in that Naturopathy management included

Naturopathy treatment, Tentative planning of Fast for 1st week and Diet planning which all are presented consecutively in Table 1, 2 and 3. Some important instructions were given to the patient during the therapy those were to avoid cold drinks, ice cream, curds, banana, coconut, black gram, fast food, junk food, non-veg (i.e. egg, fish and meat), tobacco, smoking, alcohol, alcohol containing other beverages, cold water for bathing, sleep in day time and to use luke warm water for bathing.^[8]

Assessment parameters

Three parameters were adopted for the assessment of present clinical study.

(I) Assessment of Clinical Features

The progress of the clinical manifestations of the *Amavata* (Rheumatoid arthritis) patients of this clinical study was assessed on the basis of important common clinical features of the *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. Sandhishula (Joint pain), Sandhishotha (Joint swelling), Sandhishthabdhatata (Joint stiffness), Sandhi-sparshasahyatva (Joint tenderness), Angamarda (Body ache), Gaurava (Heaviness of the Body), Agnidourblya (Impaired digestive capacity) were selected as important common 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.

Table 1: Naturopathy treatment

1 st week	2 nd week	3 rd week
Mud pack application: 10 to 20 minutes (min.) Prayer: 2 min.	Mud pack application: 10 to 20 minutes (min.) Prayer: 2 min.	Mud pack application: 10 to 20 minutes (min.) Prayer: 2 min.
Physical exercise (only joint rotation & muscle stretching exercise):10min.	Physical exercise (only joint rotation & muscle stretching exercise): 10 min.	Physical exercise (only joint rotation & muscle stretching exercise):10min.
Breathing exercise: 5min. Relaxation: 10min.	Breathing exercise: 5min. Relaxation: 10min.	Breathing exercise: 5min. Relaxation: 10min.
Hip bath: 10 min.	Hip bath: 10 min.	Hip bath:10 min.
Shiatsu massage with Acupressure: 15 min.	Shiatsu massage with Acupressure: 15 min.	Shiatsu massage with Acupressure: 15 min.
Warm Sand application: 05 min.	Warm Sand application: 0 5 min.	Warm Sand application: 05 min.
Infrared ray: 05 min. over the affected joints	Infrared ray: 05 min. over the affected joints	Infrared ray: 05 min. over the affected joints
Small & mild vibretor: 05 min.	Small & mild vibretor: 05 min.	Small & mild vibretor: 05 min.
The above Naturopathy management was given in every day morning in empty stomach for continuous three weeks (i.e. 21 days).		

Table 2: Tentative planning of Fast for 1st week

Timing	Instruction
6.00 am	Wake up, tooth brush, mouth wash and take two glass of water.
6.30 am to 7.30am	Natural urges, bathing with luke warm etc.
7.30 am	Prayer
7.45 am	Intake 1 cup luke warm Shunthifant (1 g dry ginger powder boiled with 1 glass of water)
8.15am to 8.30am	Intake 1 glass luke warm boiled mug dhal (green gram dhal) water.
11.30am to 12.30pm	Boiled rice (semi liquid) with boiled mug dhal (green gram dhal) water.
4.30pm to 5.30pm	Intake 1 glass luke warm boiled mug dhal (green gram dhal) water.
7.30pm to 8.00pm	Boiled rice (semi liquid) with boiled mug dhal (green gram dhal) water.
9.45pm	Prayer & intake 5 ml Eranda taila (castor oil) with 1 glass luke warm water.
10.00pm	Go to sleep [first Vamkukshi kashayan (left lateral posture) for10 to15 min, then as usual].

Patient should follow the above diet plan on 3rd, 4th & 5th day of the 1st week.

On 6th day patient should take boiled rice in moderate quantity with mug dhal (green gram dhal) in the lunch & dinner time.

On 7th day patient should take boiled rice or homemade roti with mug dhal (green gram dhal) in the lunch time & dinner time.

(i) Walking time

The patients were asked to walk a distance of 30 feet and the time taken was recorded before and after the treatment by using stop watch.

(ii) Grip Strength

To measure the functional capacity of the affected upper limb, especially for both hands and wrist joints, the patient's ability to compress an inflated ordinary sphygmomanometer cuff under standard conditions (i.e. 20 mmHg) and it was recorded before and after the treatment.

(iii) Foot pressure

To measure the functional capacity of the affected lower limb (especially affected ankle and metatarsphalangeal joints), foot pressure was recorded before and after the treatment by the patient to press a weighing machine.

(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 collected 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 as follows: i) Complete Remission, ii) Major Improvement, iii) Minor Improvement & iv) No-improvement.

OBSERVATIONS

Majority of patients i.e. 68.26 % belonged to 30 – 50 years of age group. 85.36% patients were female, 88.48 % patients were Hindu (As, Jamnagar is Hindu majority area), 97.79 % patients were Married, 74.06 % patients were Housewives (as, Maximum patients were middle aged female), 69.79 % were coming from Middle class, 76.37 % were in urban habitat, 89.84 % were Educated from primary to graduate level.

Maximum patients i.e. 58.87 % were having Negative Family history, 84.36 % patients were having Gradual Onset, 96.44 % patients were having Relapsing Course and 48.57 % 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. 87.57 % were Vegetarian (as, the diet pattern of Jamnagar people is mainly Veg), 83.42 % patients were of Poor Appetite, and 47.77 % were Krura Kostha (Constipated). All the patients suffered more in Varsha ritu (Rainy season) & Shita ritu (winter season).

In majority of patients (96.44%) wrist joint was involved along with Metacarpophalangeal (87.24%), Metatarsphalangeal (85.58%), Ankle (82.14%), Knee (76.47%), Elbow (28.48%), PIP (28.66%), Shoulder (13.32%), Hip (7.56%), Jaw (5.44%), DIP (8.44%), Lumbo-sacral (6.44%) and Cervical (3.44%) joints were involved.

C-Reactive-Protein positive was found in 72.66% patients and it expresses the percentage of severe case in the study, R.A. factor positive was found in 26.42% 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 23.24% patients and Deformity was observed in 6.16% 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 72.45%, 67.58% & 86.76% patients respectively.

Table 3: Diet planning

Timing	Instruction
6.00 am	Wake up, tooth brush, mouth wash and take two glass of water.
6.30 am to 7.30 am	Natural urges, bathing with luke warm etc.
7.30 am	Prayer
7.45 am	Intake 1 cup luke warm Shunthifant (1 g dry ginger powder boiled with 1 glass of water)
8.15 am to 8.30 am	Breakfast (dalia/mamra/upma etc. with toned milk.)
11.30 am to 12.30 pm	Light Lunch [Boiled rice, dal (pulse), vegetable soup or vegetable khichidi or roti, dal (pulse), vegetable soup], then Shatapadgaman (100 steps walking), Never sleep in day time.
1.00 pm to 1.15 pm	Intake fresh seasonal fruit (e.g. apple, pear, pomegranate, guava etc.) never take ripe banana & mango.
4.30 pm to 5 pm	Evening snacks, if needed, take toned milk with rice puff or rice flacks in moderate quantity.
7.30 pm to 8.00 pm	Light dinner (Boiled rice, dal (pulse), vegetable soup or vegetable khichidi or roti, dal (pulse), vegetable soup), then Shatapadgaman (100 steps walking).
9.45 pm	Prayer & intake of 5ml Erandataila with 1 glass luke warm toned milk.
10.00 pm	Go to sleep [first Vamkukshi kashayan (left lateral posture)-10 to15 min, then as usual].
The above diet plan was strictly followed for continuous three weeks (i.e. 21 days).	

Table 4: 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.					
Sandhishula (Joint pain)	2.14	1.47	31.38	0.46	0.07	8.5	<0.001
Sandhishotha (Joint swelling)	1.42	0.77	45.60	0.47	0.07	8.4	<0.001
Sandhi-sthabdhata (Joint stiffness)	2.17	1.39	35.62	0.41	0.06	11.58	<0.001
Sandhi-sparsha-asahyatva (Joint tenderness)	1.77	1.12	36.61	0.47	0.07	8.50	<0.001
Angamarda (Body ache)	2.1	1.16	42.51	0.37	0.07	14.88	<0.001
Gaurava (Heaviness of the Body)	2.1	1.4	35.1	0.47	0.08	9.55	<0.001
Agni-dourblya (Impaired digestive capacity)	2.1	1.04	48.69	0.17	0.04	37.01	<0.001

Table 5: 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	12.19	11.01	9.66	0.56	0.10	13.53	<0.001
Grip strength	94.01	98.18	4.45	2.03	0.35	12.21	<0.001
Foot pressure	21.74	23.56	8.41	0.88	0.15	13.22	<0.001

Table 6: Overall effect of the therapy

Effects	No. of Patients	Percentage (%)
Complete Remission	00	00
Major Improvement	22	55
Minor Improvement	16	40
No-Improvement	02	05

RESULTS AND DISCUSSION

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 4 and Table 5 respectively.^[9] As per Table 6, Overall Effect of the Therapy express that maximum patients i.e. 55 % showed major improvement, 40 % showed minor improvement, 05 % showed no improvement & complete remission was nil. Probable mode of action of Naturopathy management of the present study is that Mud pack application improves Agni-bala (digestive capacity) & the functional capacity of the abdominal organs. As a result the Ama (biotoxin) formation is prevented. Moreover it also absorbs the biotoxin from that applied area.

Prayer helps to improve the spiritual aspect of the life and also increases the mental strength. Physical exercise (Stretching & Rotations) increases the joint mobility and diminishes the joint stiffness. Breathing exercise improves the functions of the respiratory and cardiovascular systems of body. Relaxation helps to decrease the anxiety, tension, mental stress and depression. Warm Hip bath improves the health of the lower abdominal organs & improves the normal bowel activity.

Shiatsu massage & Acupressure encourage the self-healing processes of the body to repair the affected area & gradually relief joint pain, swelling, stiffness and tenderness. Infrared ray & Warm Sand application improve the health of the affected joints and reduce the joint pain, swelling, stiffness & tenderness. Small vibrator helps to relax the stiffness of the muscles. Fasting helps to give some rest of the body from usual daily life activities, improves the functional capacity of all organs of the body & reduces the biotoxins into the body. Diet planning gives proper nutrition of the body &

enhances the vital capacity of the body. Other Advise helps to prevent the further formation of Ama (biotoxins) into the body.

CONCLUSION

It can be concluded that Amavata looks similar to Rheumatoid arthritis because more or less same clinical manifestations of Amavata and Rheumatoid arthritis, 30 to 50 years age group of females were mainly affected with this disease and the Naturopathy 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 Mud pack application, Prayer, Exercise of stretching & rotations, Breathing exercise, Relaxation, Hip bath, Shiatsu massage, Acupressure, Warm sand & Infrared ray application, Small & mild vibrator and Diet planning systemically followed for continuous 21 days and also followed tentative planning of Fast for 1st week.

No complications had been observed in this clinical study. Therefore this drug less, easy adoptable, easy affordable, less economic, free of side effects & more natural alternative treatment or management may be thought for the treatment of Amavata (Rheumatoid arthritis) for the benefit of patients.

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