

Management of Amavata w.s.r.to Rheumatoid Arthritis

Research article

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Abstract

Nowadays erroneous dietary habits, lifestyle and environment have led to various autoimmune disorders i.e *amavishajanya vikaras* and 'Amavata' is one among them. Treating or managing *Amavata* /Rheumatoid Arthritis (RA) is a challenge for both modern & Ayurvedic physicians. So, this single group observational study was conducted by administering *nityavirechana* & *jambeera pinda sweda* in thirty patients of *Amavata*/RA. Therapeutic effect was assessed by using subjective & objective criteria which were graded and analysed statistically using paired t test. The response by the treatment was statistically significant with major & moderate improvement in 6 & 20 patients respectively. So, *nityavirechana* & *jambeera pinda sweda* can be effectively adopted in the treatment of *Amavata* /RA.

Key words: *Amavata*, Rheumatoid Arthritis, *nityavirechana*, *Jambeera pinda sweda*.

Introduction

Ayurveda has taken foremost place in the management of many crippling diseases, one among them is *amavata* i.e, 'Rheumatoid Arthritis'. It is the second most common joint disorder. Its treatment should aim towards giving symptomatic relief (*lakshanika chikitsa*), arresting progression of pathology (*samprapti vighatana*) & preventing complication.

Madhavakara is the first to give the detailed description of *Amavata*. It affects the individuals who indulges in *viruddhahara* (improper & irregular dietary habits), *viruddhachesta* (improper physical and psychological activities), sedentary habits, has *mandagni*, does

exercise immediately after food. Here development of *ama* & aggravation of *vata* takes place simultaneously which enters the multiple joints to present with the disease.

Pain, swelling and stiffness of multiple joints, inflammatory signs in joints like that of scorpion bite, with systemic features (*sarvadaihika lakshanas*) of *ama* like *angamarda* (myalgia), *aruchi* (tastelessness), *trishna* (thirst), *alasya* (lazyness), *gourava* (heaviness), *jwara* (pyrexia), *apaaka* (indigestion), *anga shunata* (edema) clinches the diagnosis of *amavata*. Chronicity makes the disease very difficult for the treatment (1).

Rheumatoid Arthritis is a chronic inflammatory, destructive and deforming symmetrical polyarthritis associated with systemic involvement. Individuals with HLA- D4 and HLA-DR4 are more prone to rheumatoid arthritis. The female male ratio is 3:1. Infection, vaccinations, physical trauma and psychological stress are the triggering factors.

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Pathogenesis includes synovitis (synovial cell hyperplasia, hypertrophy with CD4 lymphocytic infiltration and synovial effusion), pannus formation, cartilage loss, fibrosis, bony erosion, deformity, fibrous and bony ankylosis, muscle wasting, periarticular osteoporosis and results in both articular and extra-articular manifestations. Course of the disease is variable. It can be slowly progressive with oligoarthritis or rapidly progressive erosive arthritis with marked deformity with downhill course.

Complete haemogram, C-reactive protein, plasma viscosity, serum proteins (albumins, gammaglobulins, alpha2 globulin, IgG, IgM, IgA), Rheumatoid factor (RF), radiology of affected joint, anti-CCP (Cyclic citrullinated polypeptide), synovial fluid analysis are the investigations necessary for the diagnosis and to know the prognosis of RA (2).

Even with the use of NSAID's (Non Steroidal Anti Inflammatory Drugs), glucocorticoids, DMARD's (Disease Modifying Anti Rheumatic Drugs), treatment remains unsatisfactory through modern system of medicine. Patients are continuously looking with a hope towards Ayurveda to overcome this challenge.

So, in this clinical study, two therapies '*nitya virechana*' with *eranda taila*(3) and '*jambheera pinda sweda*' (a anubhuta therapy - a *ruksha sweda* (4) with classical base (5)) have been administered together to evaluate their efficacy in *Amavata*.

Aims and Objectives:

1. To evaluate the efficacy of '*Jambheera Pinda Sweda*' and '*nityavirechana*' in patients of *Amavata*/ Rheumatoid arthritis.

Materials and Methods:

Total 30 patients with classical features of *Amavata* / Rheumatoid arthritis between 16 to 60yrs of age, were selected

from OPD and IPD of JSS Ayurveda hospital, Mysore for the present work.

Diagnostic criteria:

- 1) *Shula*, *Shotha* and *Stabdhatta* in multiple joints
- 2) A few or more systemic features of *ama* (*Sarva daihika ama lakshanas*) i.e, *angamarda* (myalgia), *aruchi* (tastelessness), *trishna* (thirst), *alasya* (lazyness), *gourava* (heaviness), *jwara* (pyrexia), *apaaka* (indigestion), *angashunata* (oedema) with or without other features of *Amavata*, explained in classics.
- 3) Morning stiffness lasting for more than 1h.
- 4) Arthritis of three or more joints.
- 5) Arthritis of hand joints.
- 6) Symmetrical arthritis
- 7) Presence of rheumatoid nodules.
- 8) Presence of rheumatoid factor (RA factor)
- 9) Radiological changes.

The criteria no.3 to 9 is laid down by American Rheumatism Association (ARA)-1988(6), were taken into consideration. Among which first four criteria must be present for duration of 6 weeks or more. Diagnosis of RA is made with four or more criteria.

Inclusion criteria:

- 1) Diagnosed case of RA/*Amavata* as per diagnostic criteria
- 2) Age between 16-60 yrs, irrespective of sex
- 3) Patients fit for *nityavirechana* & *Jambheera Pinda Sweda*

Exclusion criteria

- 1) Patients who have developed secondary complications of RA e.g.pleuropericardial diseases etc.
- 2) Any other arthritis / connective tissue disorders
- 3) Patients with any other systemic diseases which interfere with the treatment.

Investigations

1. ESR & RA factor
2. Any other investigations to exclude other pathologies (if necessary)

Study design:

All selected 30 patients were given *nitya virechana* with *eranda taila* & *jambheera pinda sweda* to all the affected joints once daily in the morning for 10 days.

The composition of *Jambheera pinda sweda* are lemon (2 no) (*Citrus limon* (Linn) *Burm.f*), *lashuna* (50g) (*Alium sativum* Linn.), *haridra* (*Curcuma longa* Linn.), *methica* (*Trigonella phonum gracum* Linn.), *shatapushpa* (*Anathum sowa* Kurz.), *Saindhava lavana* each 250g. All the drugs are fried in a pan without oil & placed on the centre of 4 cotton cloth of the size 18 inches square in equal quantity. The corners of the each cloth are approximated & tied to form a stiff rounded pack (*pottali*). The free end of the cloth is then folded and tied to form a handle. In this way 4 packs are prepared.

After confirming that the heat in the *pottali* is tolerable, *swedana* procedure should be started, without prior *abhyanga*, by two therapists with the patient in supine position. The packs may be momentarily touched on the joint repeatedly or moved on the joint or placed over or beneath the joint, by using heated *pottalis* alternatively. The procedure should be continued in different positions for 40 minutes or till the patient develops the symptoms indicative of proper affect of *swedana* (7).

Every care should be taken to prevent over heating as it carries the risk of causing burns during the procedure. After the procedure, patient is asked to take rest for a few minutes and to bath with luke warm water.

Depending on the *koshta*, all selected patients were given *Eranda taila* 10-30 ml with 20ml of *shunti kashaya* (8) (5g of *shunti churna* added with 80ml of

water, boiled and reduced to 20ml and filtered) (9) orally at 7.30a.m.in empty stomach expecting not more than 3-4 *virechana vegas* daily for 10 days.

Patients were advised to have *laghu ahara* (light diet) after treatment & to avoid sweets, fried food, peas, black gram, potato, curds, non-veg during the period of treatment.

Assessment criteria:

The results of the therapies were assessed on the basis of signs & symptoms mentioned in Ayurveda as well as the criteria fixed by ARA (1988).

Clinical assessment

1. *Sandhi shula* (pain in the joints)
 - a) Occasional pain - 00
 - b) Mild pain of bearable nature - 01
 - c) Frequent moderate pain, but no difficulty in joint movement - 02
 - d) Slight difficulty in joint movements due to severe pain, requires medication, and may remain throughout the day - 03
 - e) Severe pain with more difficulty in moving the joints, disturbing sleep and requires strong analgesics - 04
2. *Shotha* (swelling of the joint)
 - a) No swelling 00
 - b) Slight swelling 01
 - c) Moderate swelling 02
 - d) Severe swelling 03
3. *Sandhi stabdhata* (stiffness of the joints)
 - a) No stiffness or stiffness lasting for 5min 00
 - b) Stiffness lasting from 5 min to 2 h 01
 - c) Stiffness lasting from 2 to 8 h 02
 - d) Stiffness lasting for more than 8 h 03
4. *Sandhi sparshasahatwa* (tenderness of joints)
 - a) No tenderness 00

- b) Subjective experience of tenderness 01
- c) Wincing of face on pressure 02
- d) Wincing of face with withdrawal of affected parts on pressure 03
- e) Resists touching 04

Mild improvement 25-49% relief
 Unchanged <24% relief

On the basis of above criteria, the data were obtained before treatment, after 10 days of treatment & 10 days after completion of treatment. These data were analysed statistically by using 'paired t' test and results were interpreted.

Functional assessment criteria:

Only general functional capacity & walking time tests were carried out for objective assessment of the improvement of patients.

a) Walking time :

The patients were asked to walk a distance of 25 feet and the time taken was recorded before and after treatment.

b) General functional capacity:

- i) Complete ability to carry out all routine duties 00
- ii) Adequate normal activity despite slight difficulty in joint movement 01
- iii) Few activities are persisting but patient can take care of himself 02
- iv) Few activities are persisting & patient requires an attendant to take care of himself 03
- v) Patients are totally bed ridden 04

Observations

Maximum number of patients i.e, 21 patients belonged to age group of 35 to 45yrs. Majority of the patients were females (86.66%), 73% were Hindus, 76% were married, 60% were belonging to middle class, 66% were housewives, 40% had positive family history, 53% had *vatakapha prakriti*, 80% had *mandagni* & 20% had *vishamagni*, 57% had chronicity of 3 to 6 yrs, 53% indulged in *vishamashana*, 33.33% indulged in *adhyashana*, 60% indulged in *divaswapna*, 93% of patients reported with major active involvement in wrist, knee, ankle & one or the other proximal and distal interphalangeal joints, 53% had active involvement of elbow joints, 33% had shoulder involvement, involvement of other joints were seen in comparatively less number of patients. Only 3 patients had rheumatoid nodules.

Among the general symptoms, *angamarda* was observed in 60%, *aruchi* in 40%, *trishna* in 30%, *alasya* in 60%, *gourava* in 66%, *jwara* in 27%, *agnimandya* & *apaaka* in 90%, *vibhanda* in 60%, *dourbalya* in 73%, *nidraviparyaya* in 50%.

Overall assessment criteria

Overall effect of the treatment was assessed on the basis of the criteria given as below

- Complete remission 100% relief
- Marked improvement 75-99% relief
- Moderate improvement 50-74% relief

Results

Table showing statistical analysis of before & after 10 days of treatment

Sl No	Features	BT Mean +/-SD	AT Mean +/-SD	Mean Difference	SED	't' Value	'p' Value	Significance
1	Sandhi Shula	3.60+/- 0.67	1.87+/- 0.82	1.73	0.143	12.095	<0.0001	H.S

2	Sandhi Shotha	2.77+/- 0.73	1.90+/- 0.76	0.87	0.142	6.117	<0.0001	H.S
3	Sandhi Stabdata	2.07+/- 0.69	1.43+/- 0.86	0.64	0.089	7.078	<0.0001	H.S
4	Sandhi Sparshasahata	2.83+/- 0.75	1.90+/- 0.76	0.93	0.117	7.992	<0.0001	H.S
5	Walking time	31.80+/- 9.11	24.03+/- 6.76	7.77	0.556	12.969	<0.0001	H.S
6	General Functional Capacity	2.10+/- 0.80	1.10+/- 0.71	1.00	0.096	10.428	<0.0001	H.S
7	ESR	54.47+/- 20.89	39.79+/- 15.34	14.68	1.928	7.207	<0.0001	H.S

Table showing the statistical analysis of before & 10 days after completion of treatment (follow up)

Sl No	Features	BT Mean +/-SD	AT Mean +/-SD	Mean Difference	SED	't' Value	'p' Value	Significance
1	Sandhi Shula	3.60+/- 0.67	1.55+/- 0.78	2.05	0.136	14.986	<0.0001	H.S
2	Sandhi Shotha	2.77+/- 0.73	1.53+/- 0.57	1.24	0.104	11.886	<0.0001	H.S
3	Sandhi Stabdata	2.07+/- 0.69	1.23+/- 0.73	0.84	0.084	9.898	<0.0001	H.S
4	Sandhi Sparshasahata	2.83+/- 0.75	1.70+/- 0.70	1.13	0.124	9.109	<0.0001	H.S
5	Walking time	31.80+/- 9.11	20.69+/- 5.21	11.11	0.781	13.512	<0.0001	H.S
6	General Functional Capacity	2.10+/- 0.80	0.93+/- 0.74	1.17	0.118	9.865	<0.0001	H.S
7	ESR	54.47+/- 2.89	35.62+/- 13.70	18.85	2.245	8.047	<0.0001	H.S

Overall Assessment

Sl.no	Overall assessment	No.of patients	Percentage
1	Complete remission	0	0%
2	Marked improvement	6	20%
3	Moderate improvement	20	66.66%
4	Minor improvement	3	10%
5	Unchanged	1	3.33%

The objective and subjective criteria when assessed before and after 10 days of treatment & 10days after

completion of treatment showed improvement which was statistically highly significant with P value < 0.0001

for all the features. Though major improvement was observed in 6 patients, none of the patients got complete remission. Moderate relief from joint pain, tenderness, swelling and stiffness was observed in 20 patients along with reduction in walking time & ESR. Minor improvement was seen in 3 patients, no improvement in 1 patient.

Discussion & Conclusion

The disease Amavata can be effectively compared to Rheumatoid Arthritis. Formation of ama & vitiation of vata takes place simultaneously and affects the sandhis, which is madhyama roga marga. Chronicity makes this disease difficult for the treatment.

As jambeera pottali sweda is a ruksha churna pinda sweda, it is highly useful in the treatment of ama present in sandhis. Its amla, lavana, ushna palliates vata whereas ruksha, ushna, teekshna, katu palliates ama. While treating ama through pinda sweda, palliation & prevention of further aggravation of vata can be achieved through nitya virechana by eranda taila. Classics appreciate the role of 'eranda taila' in the treatment of Amavata. As *aama dominates here shunti kashaya* is selected as *anupana* for *eranda taila*. Maximum of 1 month administration of *eranda taila* is permitted in classics in the treatment of other vatavyadhis¹⁰. So, it was administered for 10 days.

Marked improvement was observed in 20% of patients and 66.66% of patients showed moderate improvement. Minor improvement was observed in 10% of patients. As this combination of *eranda taila nityavirechana* and *jambeera pottali sweda* treatments has shown good results, it can be effectively adopted in patients of

amavata (RA) when *ama* features dominate.

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