

CLINICAL EVALUATION OF AJMODADI CHURNA IN THE MANAGEMENT OF AMAVATA W.S.R. TO RHEUMATOID ARTHRITIS

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ABSTRACT

In the present scientific era, people are fed up with the side effects and after effects of most effective and fast acting modern drugs, which are lowering the human immunity at the same time when they are suppressing the disease. The use of naturally available substances to relieve the ailment by men as well as animals is as old as beginning of life. So patients are continuously looking with a hope towards *Ayurveda* to overcome this challenge. Here is an attempt to know the “Clinical evaluation of *Ajmodadi churna* in the management of *Amavata*” so as to make the sufferer free from clinical signs & symptoms. In the present study 32 patients were registered, out of which 30 patients completed the treatment and 2 patients discontinued the treatment in between. RA factor test, haematological and biochemical investigations and routine urine tests were also carried out in all the patients. The selected patients were studied under single group. In this group patients were administered *Ajmodadi churna* in the dose of 3 gm b.d /day for 60 days. For the assessment of results, the clinical parameters were followed. The results obtained were statistically analysed and mean percentage, S.D., S.E., and ‘t’ value by using the paired ‘t’ test were calculated.

Key words: *Amavata*, Rheumatoid arthritis, *Ajmodadi churna*

INTRODUCTION

Ayurveda is an age old science of health which emphasizes on the health than to cure disease. So, now a day’s people are coming back to the nature from synthetics, hence, the *Ayurveda* will be the future medicinal science of the world, not only in India. *Amavata* is a clinical condition where in *Ama* is stimulated by the aggravated *vata dosha* and settles in *trika sandhi*’s. It is characterized by immense pain in joints with inflammation, fever and ultimately stiffness of the joints^[1]. The two principle causative Factors ‘*ama*’ and ‘*vata*’ have equal importance in the pathogenesis. Improper di-

gestive mechanism which is the basic cause of the disease is undigested *Ahara Rasa* or *Ama*^[2]. This acts like *visha* in the body and sets in different types of disorders, among them *Amavata* is very important disease. In early stages, only the joint involvement can be seen with cardinal features like *angamarada*, *aruchi*, *alasya*, *jwara* and *angashoonata*^[3] etc, but if it is not treated with systemic treatment procedures, then through the *madyama roga marga*, it will lead to cardiac damage and further complications like involvement of gastro-intestinal, cardiovascular, nervous, urinary and respiratory systems

also. In its chronic phase, frequent aggravation of its entities concludes as crippers for human being.

Amavata can be compared to Rheumatoid arthritis which is a systemic chronic inflammatory joint disorder which affects predominantly the synovial joints. Cardiac involvement, symmetrical involvement of joints along with pain, stiffness and swelling with number of systemic complications resembles the disease *Amavata*.^[4]

The prevalence of RA, is approximately 0.8% of the population (range 0.3 to 2.1%), women are affected three times more often than men. The prevalence increases with age and sex difference diminishes in the older age group. RA is seen throughout the world and affects all races^[5]. Here is an attempt to know the “Clinical evaluation of *Ajmodadi churna* in the management of *Amavata*”^[6] so as to make the sufferer free from clinical signs & symptoms.

AIMS AND OBJECTIVES; Clinical Evaluation of *Ajmodadi churna* in the management of *Amavata* w.s.r. to Rheumatoid Arthritis

MATERIALS AND METHODS; Patient were selected from JIAR.

Inclusion criteria:

- ❖ Patients of both the sexes between the age group of 15-60 yrs.
- ❖ Patients having classical signs and symptoms of *Amavata* as mentioned in *ayurvedic* texts.

The basis of criteria lay down by American association of Rheumatism (1998):

- ❖ Morning Stiffness lasting for more than 1 hour.
- ❖ Arthritis of three or more joints.
- ❖ Arthritis of hand joints.

- ❖ Symmetrical Arthritis.
- ❖ Rheumatoid nodules.
- ❖ Serum Rheumatoid factor.
- ❖ Radiographic changes.

First three should be present for at least 6 weeks.

Exclusion Criteria:

- ❖ Chronicity less than 6 weeks and more than 5 years.
- ❖ Gout, Ankylosing spondylitis, Osteoarthritis.
- ❖ Arthritis with Malignancy.
- ❖ Psoriatic Arthritis, Osteomyelitis, Rheumatic fever and associated with any other serious Systemic Diseases/ Complications, Pregnant women, Diabetes mellitus.

Criteria of assessment:

For evaluating the efficacy of the drug, following parameters were adopted before and after the completion of the clinical trial.

Clinical Assessment:

Improvement in the signs and symptoms of *Amavata* as per *Ayurvedic* classics *SandhiShoola* (Pain), *SandhiShotha* (Swelling), *Sparshasahyata* (Tenderness), *Stabdhta* (Stiffness), *Raga* (Redness), *Ushanata* (warmth)

Objective parameters:

- ❖ R.A. Factor
- ❖ E.S.R

Laboratory Investigations:

- ❖ Hematological:-Hb, TLC, DLC, ESR, FBS, R.A.Factor.
- ❖ X-Ray of the affected Joint, if necessary.
- ❖ Urine Analysis
- ❖ CRP

Grading of the Assessment Criteria:

(1) Sandhi Shoola (pain in joints):

Grade	Severity
0	No Pain
1	Mild Pain of bearable nature comes Occassionally.
2	Moderate pain but no difficulty in movement of joint,appears frequently and requires some <i>Upashaya</i> measures for relief.
3	Slight difficulty in joint movements due to pain or severe pain requires medication and remain throughout the day
4	More difficulty in moving the joints, pain is severe ,disturbing the sleep and requires strong analgesics.

(2) Sandhi Shotha (Swelling)

Grade	Severity
0	No complaints
1	slightly obvious
2	covers well the bonny prominence
3	Much elevated so that joints seems grossly deformed.

(3) Stabdhta (Stiffness)

Grade	Severity
0	No stiffness or upto 5 minutes
1	Stiffness lasting for 5 minutes to 30 min
2	Stiffness lasting for 30 min. to 2 hours.
3	Stiffness lasting for more than 2 hours

(4) Sparsasahayata (Tenderness):

Grade	Severity
0	No complaints
1	Subjective experience of tenderness
2	Wincing of face on pressure
3	winces and withdraws the affected joints
4	Resists to touch

(5) Redness around Joints:

Grade	Severity
0	No redness
1	Raga during attack, persists for a week after attack
2	Raga very often without attack
3	Always persisting

(6) Warmth around Joints:

Grade	Severity
0	Normal temperature

1	Raised temperature when compared to the normal body surface
2	Relief on having some NSAID's, local antihistaminics
3	relief on having some steroids

(7) R.A. Factor :

Grade	Severity
0	Negative
1	Positive

(8) ESR:

Grade	Severity
0	Between 0-20 mm/hr
1	Between 20-35mm/hr
2	Between 35-50mm/hr
3	> 50mm/hr

MATERIALS: Materials (Drug) used in the research work is: *Ajmodadi Churna*¹

Ingredients: *Ajmoda, Vidang, Pippali, Saindhava, Marich, Devdaru, Pippalimula, Shatpushpa, Chitraka, Haritki, Vidhara, Shunthi.*

Dose: 3 gm b.d. /day before meals

Anupana: Lukewarm water

Duration: 3 months

Table: 1 EFFECT OF AJMODADI CHURNA ON SYMPTOMS

SYMPTOMS	MEAN A.T.	B.T.	D	% RE- LIEF	S.D	S.E	t	P
<i>Sandhi Shoola</i>	2.83	0.67	2.16	76.32	.648	.118	18.322	<0.001
<i>Sandhi Shotha</i>	2.00	0.63	1.37	68.50	.850	.155	8.804	<0.001
<i>Stabdhta</i>	2.30	.70	1.6	69.56	.498	.09	17.59	<0.001
<i>Sparshasahyata</i>	2.80	1.2	1.6	57.14	.68	.124	12.32	<0.001
<i>Raga</i>	.9333	.3000	0.63	67.85	.718	.131	4.829	<0.001
<i>Ushnata</i>	0.93	0.57	0.37	38.70	.56	.10	3.61	<0.05

Table: 2 EFFECT OF AJMODADI CHURNA ON R.A.FACTOR

SYMPTOMS	MEAN B.T. A.T.	D	%RELIEF	S.D	S.E	t	P
R.A.Factor	.5333 .3333	0.20	37.50	.406	.074	2.693	<0.05

Table: 3 EFFECT OF AJMODADI CHURNA ON E.S.R.

SYMPTOMS	MEAN B.T. A.T	D	%RELIEF	S.D	S.E	t	P
E.S.R	2 1.73	0.27	13.50	.45	.08	3.247	<0.05

EFFECT OF THE THERAPY

The effect of the therapy in this study was assessed on the basis of changes observed in the cardinal features, laboratory findings (ESR, R.A Factor), after completion of the treatment.

1. Effect on Sandhishoola

Relief in *Sandhishoola* was observed in 76.32% of the patients of this study. The relief was highly significant statistically ($P < 0.001$). This significant relief may be due to the *Vata-kaphahara, shoolagna* properties of the *Ajmodadi Churna*.

This relief may also be due to the *Ushana Guna* of the *churna*, which helped in local digestion of *Aama*, thereby removing the obstruction to the normal movement of *Vata*.

2. Effect on Sandhishotha

The relief in *SandhiShotha* was observed in 68.50% of the patients in this research study. The relief was highly significant statistically ($P < 0.001$). The significant relief observed in *Shotha* may be due to the *Shothaghana* property of the drugs such as *Devdaru, Vidhara, Shunthi, Ajmoda*. Most of the ingredients of the *Ajmodadi Churna* are *Ushana Virya*, so the combination might have digested the *Ama* which was accumulated in *Sandhi's*, thus causing reduction in *Shotha*.

3. Effect on Stabdhta

The relief on *Stabdhta* was observed in 69.56% of the patients in this research study. The relief was highly significant statistically ($P < 0.001$). The significant relief observed may be due to the resolution of the *Ama* in effected parts by the *Ushana Virya* of the drug.

4. Effect of therapy in Sparshasahatva

The effect on *Sparshasahatva* was observed in 57.14% of the patients which is highly significant statistically ($P < 0.001$). This significant relief may be due to the *shothahara* properties of the drug and also due to the *ama pachana* property which thereby helps in curing *srotavrodha*.

5. Effect of the therapies on warmth and redness over joints

The relief observed in both the parameters i.e (warmth and redness) after the completion of treatment was 38.70% and 67.85% respectively. The relief was significant and highly statistically in both these parameters ($P < 0.001$).

6. Effect of the therapy on R.A.Factor and E.S.R.

The relief observed in R.A.Factor and E.S.R. after the Completion of treatment was 37.50% and 13.50% respectively which is proved to be statistically significant in both the parameters. (< 0.05)

OBSERVATIONS AND RESULTS

- ❖ Effect on *Sandhi Shoola* was found to be statistically highly significant ($P < 0.001$). The drug formulation contains drugs having *vata-kapha shamaka* effects and *shoolaprashamana* properties which might be responsible for the effect.
- ❖ Effect on *Sandhi Shotha* was highly significant statistically ($P < 0.001$). There are drugs in the formulation having *shothahara* properties and are *Vatanulomaka* which may be the probable cause for the effect.
- ❖ Effect on *Stabdhta* was found to be highly significant statistically ($P < 0.001$). Many drugs in this formulation are *Vata Kapha Shamaka* and *Anulomaka* which

might be responsible for this effect. The drugs are having *Vata Kapha Shamaka*, *Shothahara*, *Shulaghana*. Properties which might be the probable cause for highly significant relief in tenderness ($P < 0.001$).

- ❖ Effect on Redness and Warmth are also statistically highly significant and Significant respectively. ($P < 0.001, P < 0.05$).
- ❖ Effect on RA factor and E.S.R. are statistically Significant ($P < 0.05$).
- ❖ The drug formulation has *katu Pradhana Tikta-Kashaya Rasa*, *Ushna Veerya*, *Katu Vipaka* and *Laghu-Ruksha Guna* which helps in eliminating vitiated *kapha*. It also corrects the *Aama*.
- ❖ The drug formulation has *Kapha-vata shamaka*, *Tridosh shamaka* properties. Most drugs are *Deepana*, *Pachana*, and *Amanashaka* and doing *Rasayana karma*. So, it works on *Aama* and pacifies the process of normal *dhatu-nirmana*.

PROBABLE MODE OF ACTION OF AJMODADI CHURNA

Ama and *Vata* are the chief pathogenic factors in causation of *Amavata*. *Ama* is the resultant of *jatharagni* as well as *Dhatavagni Mandyata*. In this combination, many drugs possess *Ushana Veerya* (*Ajmoda*, *Vidanga*, *Devdaru*, *Chitraka*, *Shatpushpa*, *Marich*, *Haritki*, *Vridharuka*, *Shunthi*) and are *Katu* and *Tikta* in *Rasa*. By virtue of these properties, the state of *Mandagni* might have improved. So, when the *Agni* is improved- the further production of *Ama* is checked at root level. Moreover, these above mentioned properties were very helpful in digestion of *Ama* which also serves as the cause of *srotavrodha* in the body.. So the combination, by virtue of its

above properties might have improved the *Agni*, checked the formation of *Ama* and did *pachana* of existing *Ama* and thereby does *Srotoshodhana*. The second most important pathognomic factor was *Vata*. Though vitiation of all the *Dosha* is there but vitiation of *Vata* plays the dominant role in *Amavata*. All the drugs of the combination are *Vata* and *Kapha Shamaka*^[7,8,9] as well. These all properties might have corrected the vitiation of *Vata* and brought it to normal position. Many drugs in the combination possesses *Shoolaghna* property such as *Ajmoda*^[10], *Vidanga*^[11], *Chitraka*^[12], *Shatpushpa*^[13], *Maricha*, *Devdaru*, *Shunthi*^[14] and also having *Shothahara* property (*Devdaru*, *Shunthi*, *Vridharuka*, *Chitraka*, *Vidanga*) Due to chronic nature of the disease, the patients remain in the state of general debility (*Dourbalya*). *Pippali*, *Haritki*, *Vridharuka* are mentioned as *Rasayana* drugs^[15,16]. Being *Rasayana*, these drugs might have improved the quality of *Dhatu* production and also brought the *Dushti* of *Dhatu* (*Dusyas*) to a normal state and improved the *Vyadhikshamatva* in the patients. *Shunthi* has also been described as antipyretic and anti rheumatic, anti-inflammatory drug^[17] in *Ayurveda*. *Marich*, *Chitraka*, *Pippali* are well known *Deepana* and *Pachana* drugs^[18], which improved the *Agnimandya* and did *Amapachana*. *Haritki* along with *kosthasudhi* also served as *Vatanulomaka* drug^[19]. Because of *Ushana guna*, the drugs caused *Pachana* of *Ama* on the affected site, thereby the obstruction to *vata* was removed i.e. the drugs are *srotavrodhanashaka*. Hence *Ajmodadi Churna* is useful combination in the management of *Amavata*.

CONCLUSION

Some interesting facts have emerged from the present research works which are as follows:

- ❖ Conceptual contrive reveals that most of the etiological factors, described in the classics are *Ama* and *Vata prakopaka*. *Vata* and *Ama* are chief culprits in *Amavata*. The observations found in the study are concordant to this description. Tendency towards sedentary life style and faulty dietary habits, leads to vitiation of *Vata* and *kapha* and leads to the production of *Ama*.
- ❖ *Pathya* is the foundation stone of the treatment as far as any disease is concerned. *Pathya* should be emphasized while dealing with management aspect. *Pathya* played a vital role in the present study.
- ❖ Predominance of *vata*, *kapha* & *mandagni* along with *tridosha dusti* was found to play an important role. Maximum *doshanubandha* found as *vata* & *Kapha* in this study sample.
- ❖ The formulation which is used in this study contains drugs having *Katu*, *Tikta Rasa*, *Ushana Veerya*, *Katu vipaka*, and having a *Laghu*, *Ruksha* properties. It follows the *chikitsa sutra* of *Amavata* so; it has provided good improvement in the present study.
- ❖ Regarding the *Nidana sevana* – it is found that *guru*, *shita*, *abhishyandi*, *ahara*, *vishamashana*, *divaswapna*, *nischestata*, *bhojanattara vyayama chinta*, *shoka* are the most aetiologically aggravating factors of the disease *Amavata*.

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