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Research Article

EFFECT OF A POLYHERBAL COMPOUND IN THE MANAGEMENT OF AMAVATA (RHEUMATOID ARTHRITIS)

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ABSTRACT

Amavata is a disease of multiple joint pain, stiffness and swelling chiefly. Symptomatically it keeps quite resemblance with rheumatoid arthritis which is an autoimmune inflammatory disorder. Being autoimmune and inflammatory in nature use of immunosuppressive agents, DMARDs, NSAIDs creates many adverse effects and limits the prognosis of this disease. Ayurveda explains gastro-intestinal affection of the disease. An improper functioning of gastro-intestinal system produces ama, the main pathogenic factor of the disease. Hence drugs correcting GIT system improve the disease condition. Present study was carried out on 15 patients using Ajmodadi churna, a polyherbal compound at Sir Sunderlal Hospital, Institute of Medical Sciences, BHU, Varanasi, Uttar Pradesh, India. There was significant improvement in symptoms and it was evident clinically and statically too.

Keywords: Ama, Autoimmune disease, Ajmodadi churna, Chakradutta.

INTRODUCTION

Ayurveda is recognized as foremost life science and describes ways to prevent and manage diseases, the world is being attracted towards its potential. It is a unique system of medicine in approach to a patient. This ancient system of medicine considers disease and diseased as well.¹ Vagbhata says² that all diseases originate due to improper functioning of GIT. Stomach is the main seat of digestive fire (jatharagni). Jatharagni imparts main role in the metabolism of all devoured food. Disturbance in the homeostasis of agni produces improper metabolism of taken food which results in the formation of unprocessed substance called as ama.³ This ama is always pathogenic in nature. Wherever it moves, it causes disease. Likewise, when this ama takes seat of joints it produces swelling, joint pain and stiffness there.⁴ This condition is called amavata. Most authoritative writings of Ayurveda like Charaka samhita, Sushruta samhita and Vagbhata samhita haven't described this disease. It is only Madhavkar of 7th A.D. who first described it as a clinical syndrome in his book Madhava Nidanam.⁵ While treatment of amavata was first depicted in Chakradutta, a book written in 11th century by Chakrapanidutta.⁶ The treatment principle aims to break pathology of ama formation by correcting agni status. All six line of treatment for amavata like langhana (lightening therapy), swedana (fomentation), deepana (potentiating agni) etc. improve agni status in GIT and hence check the formation of ama. Amavata has clinical as well as biochemical resemblance with rheumatoid arthritis.⁷ Present study was carried out to find a better remedial drug for amavata vis-a-vis rheumatoid arthritis.

MATERIAL AND METHODS

The patients were selected for this trial after fulfilment of diagnostic criteria of amavata (RA). Patients were thoroughly examined and questioned on both subjective and objective parameters. Ethical clearance and informed consent was obtained before conducting the clinical trial (Dean/2011-12/169 on 14/18-5-2011).

Selection of Drug

Various drugs have been prescribed for amavata in various dosage forms. Ajmodadi churna is one of those described in Chakradutta.⁸ It has good impact on digesting ama and thereby balancing homeostasis of agni. All ingredients were identified and triturated to make fine powder. All ingredients are mentioned in Table 1.

Dose

Churna- 5 g twice daily with lukewarm water for total period of 3 months

Selection of Cases

A total 20 patients of RA were randomly selected for this study from the Kayachikitsa OPD and IPD, (Sir Sunder Lal Hospital, BHU, Varanasi, India) of which 15 patients completed 3 months follow-up at 1 month interval. The case selection was regardless of sex, occupation, socio-economic, seropositive and seronegative condition. Both acute and chronic cases of RA were taken under consideration following the EULAR-2010⁹ criteria and the clinical features of amavata described in Madhava Nidana.¹⁰

Inclusion Criteria

- Diagnosed cases of Amavata and RA.
- Age between 20 and 60 year.
- Patients willing to participate in the above trial.

Exclusion Criteria

- Patients with deformities and systemic complication.
- Patients suffering from diabetes, hypertension, tuberculosis, asthma or other disease.
- Pregnant and lactating women.
- Patients discontinuing the trial drug and non-willing patients.

Calculation of Data

Statistical calculation was done by using Friedman Test.

Investigation

All patients were advised to the following blood investigations-

Haemoglobin, Total leucocyte count, Blood sugar, Liver function test, Renal function test, Anti-streptolysin O titre (to exclude rheumatic disease), HLA B-27 and ANA to exclude other auto-immune and collagen diseases

Only patients having normal levels were included in the study. CRP, ESR, RF, anti-CCPab were also done before initiation of treatment and after completion of the therapy.

Criteria for the Assessment of Amavata (Rheumatoid Arthritis)

- Symptomatic improvement.
- Side / toxic effect of the drugs if any.

Parameters for the Assessment of Symptoms

Intensity of the symptoms was assessed on the following visual analogue scale:

0. No symptom
1. Mild
2. Moderate
3. Severe but not restricting daily activity
4. Severe and restricting daily activity

RESULT

Selected patients were allowed to take the drugs as advised. Assessment was done on the subjective and objective parameters. Significant changes were observed (except 'tenderness') which are shown in the following table 1 & 2. However not any change was observed in the routine blood examination. The Tables show changes in symptoms of RA (Amavata): (BT- before treatment, F₁- 1st follow up, F₂- 2nd follow up, F₃- 3rd follow up, F-test- Friedman test; NS- not significant)

DISCUSSION**Probable Mode of Action of Ajmodadi Churna**

(On the basis of Ayurvedic pharmacological properties)

In disease amavata, kapha and vata dosha (body humour/bio-element) are the main culprits. The combination shows main action against kapha and vata dosha by virtue of its virya (about 81 % of total drugs have ushna virya).

From the pathogenesis of amavata, it is clear that the main dushya (tissue) involved is rasa. The combination shows, about 61 % of total drugs have a katu rasa (pungent). Katu rasa improves the digestion and made first dhatu in proper form, so the combination will act on the rasa dhatu. In the combination, maximum percentage of the drugs like Shunthi, Pippali, Pippalimula, Chitraka etc. show dipana (potentiating of agni), pachana (digesting property) property which improves the function of agni. The churna will stop the further ama production and help to break the basic pathology. Ama means unripe and undigested food. It needs proper digestion. By the virtue of ushna virya (81 % of total drugs) and dipana-pachana property, ama pachana will take place. Drugs like sunthi, pippali, pippalimula, chitraka etc. are proved to be good for digesting ama. So the formulation will act on the ama which is the main pathogenic factor of the disease. Ajmodadi churna has been proved to be a good anti-inflammatory poly herbal compound.¹¹

Table 1: Selected drugs with Botanical & Family names

Sanskrit Name	Botanical Name	Family
Ajmoda	<i>Carum roxburghianum</i> (DC) Craib.	Umbellifereae
Maricha	<i>Piper nigrum</i> Linn.	Piperaceae
Pippali/Pippalimula	<i>Piper longum</i> Linn.	Piperaceae
Vidanga	<i>Embelia ribes</i> Burm.	Myrsinaceae
Devadaru	<i>Cedrus deodara</i> Roxb.	Pinaceae
Shatahwa	<i>Foeniculum vulgare</i> Mill.	Umbellifereae
Chitraka	<i>Plumbago zeylanica</i> Linn.	Plumbaginaceae
Haritaki	<i>Terminalia chebula</i> Retz.	Combretaceae
Shunthi	<i>Zingiber officinale</i> Rosc	Zingiberaceae
Vridhadaru	<i>Argyria speciosa</i> Sweet	Convolvulaceae
Saindhava lavana	Rock salt	

Table 2: Changes in Symptoms of Amavata in 16 Patients

Symptom	Score	BT		F ₁		F ₂		F ₃		F-test
		N	%	N	%	N	%	N	%	
Body ache	0	1	5	1	6.7	2	13.3	7	46.7	$\chi^2 = 29.07$ p<0.001
	1	7	35	6	40	9	60	5	33.3	
	2	7	35	6	40	4	26.7	3	20	
	3	4	20	2	13.3	0	0	0	0	
	4	1	5	0	0	0	0	0	0	
Heaviness	0	5	25	7	46.7	7	46.7	7	46.7	$\chi^2 = 6.00$ p>0.05
	1	14	70	7	46.7	7	46.7	7	46.7	
	2	0	0	0	0	0	0	0	0	
	3	1	5	1	6.7	1	6.7	1	6.7	
	4	0	0	0	0	0	0	0	0	
Indiges-tion	0	5	25	3	20	3	20	4	26.7	$\chi^2 = 29.25$ p<0.001
	1	4	20	3	20	9	60	11	73.3	
	2	8	40	9	60	3	20	0	0	
	3	3	15	0	0	0	0	0	0	
	4	0	0	0	0	0	0	0	0	
Pain	0	0	0	0	0	1	6.7	3	20	$\chi^2 = 28.93$ p<0.001
	1	4	20	3	20	8	53.3	6	40	
	2	11	55	8	53.3	3	20	6	40	
	3	5	25	4	26.7	3	20	0	0	
	4	0	0	0	0	0	0	0	0	
Joint swelling	0	11	55	6	40	7	46.7	8	53.3	$\chi^2 = 7.346$ p>0.05
	1	5	25	5	33.3	5	33.3	4	26.7	
	2	3	15	3	20	2	13.3	2	13.3	
	3	1	5	1	6.7	1	6.7	1	6.7	
	4	0	0	0	0	0	0	0	0	

Table 3: Changes in Symptoms of Amavata in 16 Patients

Stiffness	0	0	0	0	0	1	6.7	2	13.3	$\chi^2 = 25.19$ p<0.001
	1	7	35	8	53.3	9	60	11	73.3	
	2	9	45	3	20	4	26.7	2	13.3	
	3	4	20	4	26.7	1	6.7	0	0	
	4	0	0	0	0	0	0	0	0	
Loss of taste	0	10	50	6	40	7	46.7	10	66.7	$\chi^2 = 23.41$ p<0.001
	1	3	15	5	33.3	7	46.7	4	26.7	
	2	5	25	3	20	1	6.7	1	6.7	
	3	2	10	1	6.7	0	0	0	0	
	4	0	0	0	0	0	0	0	0	
Thirst	0	17	85	12	80	12	80	13	86.6	$\chi^2 = 4.714$ p>0.05
	1	2	10	2	13.3	3	20	2	13.3	
	2	1	5	1	6.7	0	0	0	0	
	3	0	0	0	0	0	0	0	0	
	4	0	0	0	0	0	0	0	0	
Lack of enthusiasm	0	6	30	4	26.7	4	26.7	6	40	$\chi^2 = 13.83$ p<0.01
	1	8	40	7	46.7	9	60	8	53.3	
	2	5	25	4	26.7	2	13.3	1	6.7	
	3	1	5	0	0	0	0	0	0	
	4	0	0	0	0	0	0	0	0	
Tenderness	0	17	85	12	80	12	80	12	80	$\chi^2 = 0$ p -NS
	1	3	15	3	20	3	20	3	20	
	2	0	0	0	0	0	0	0	0	
	3	0	0	0	0	0	0	0	0	
	4	0	0	0	0	0	0	0	0	

CONCLUSION

Being pro-nature and holistic in approach Ayurveda is recognized as foremost life science. The world is being attracted towards its potential. RA is a crippling disorder of joints which has so many systemic side effects in spite of good range of NSAIDs and anti-rheumatic agents. Ama is a basic pathologic factor in the genesis of all diseases occurring due to improper functioning of gastro-intestinal system and amavata is one of those disorders. This system of medicine with so many effective herbal and herbo-mineral formulations has good hope because there is not any side effect of these drugs if used judiciously. In present trial patients have shown a good symptomatic relief. There was not any side effect observed. However

some patients complained of burning sensation in upper gastro-intestinal tract at the initiation of therapy. Ajmodadi churna has been proved to be a good herbal drug with a better prognosis. In another study with Ajmodadi churna and Eranda oil (castor) on patients of amavata (~RA) marked improvement of symptoms with a better prognosis was observed.¹²

REFERENCES

1. Agnivesha. Sutrasthana 30/26. In: Rajeshwar Dutt Shastri *et al*, editors. Charaka Samhita. Varanasi: Choukhambha Bharati Academy; 2005. p. 587.
2. Vagbhata. Nidanasthana 12/1. In: Gaur BL, editor. Astanga Hridaya. Varanasi: Choukhambha Orientalia; 2009. p. 237.

3. Vijayrakshita. Madhukosha, commentary on Madhava Nidana. In: Upadhyaya YN, editor. Madhava Nidanam, Varanasi: Chaukhambha Sanskrit Sansthan; 2005. p. 509.
4. Madhavakara. Amavata Nidanam. In: Upadhyaya YN, editor. Madhava Nidanam, Varanasi: Chaukhambha Sanskrit Sansthan; 2005. p. 511.
5. Madhavakara. Amavata Nidanam. In: Upadhyaya YN, editor. Madhava Nidanam, Varanasi: Chaukhambha Sanskrit Sansthan; 2005. p. 509-512.
6. Chakrapani Dutta. Amavata chikitsa. In: Tripathi ID, editor. Chakradutta. Varanasi: Choukhambha Sanskrit Sansthan; 2009. p. 167-173.
7. Amit Kr Dixit *et al.* Biochemical and serological profiling of Sandhi Shoola (arthralgia) patients of Ayurveda Hospital. Int. J. Res. Ayurveda Pharm 2013; 4(2): 141-44. <http://dx.doi.org/10.7897/2277-4343.04210>
8. Chakrapani Dutta. Amavata chikitsa. In: Tripathi ID, editor. Chakradutta. Varanasi: Choukhambha Sanskrit Sansthan; 2009. p. 169.
9. Ankoor Shah, E William St Clair. Rheumatoid Arthritis, In: Longo L Dan, Fauci S Anthony, Kasper L Dennis, Hauser L Stephen, Jameson Larry J, Loscalzo Joseph, editors. Harrison's Principles of Internal Medicine, 18th edition. New Delhi: Mc Graw Hill Medical; 2012. p. 2745.
10. Madhavakara. Amavata Nidanam. In: Upadhyaya YN, editor. Madhava Nidanam, Varanasi: Chaukhambha Sanskrit Sansthan; 2005. p. 511.
11. Aswatha Ram HN, Sriwastava NK, Makhija IK, Shreedhara CS. Anti-inflammatory activity of Ajmodadi Churna extract against acute inflammation in rats. J Ayurveda Integr Med 2012; 3: 33-7. <http://dx.doi.org/10.4103/0975-9476.93946>
12. Mishra Pramod Kumar, Rai NP. A clinical study on Ajmodadi Churna and Eranda taila in the management of Amavata (Rheumatoid arthritis). Int. Res. J. Pharm 2013; 4(6): 211-213. <http://dx.doi.org/10.7897/2230-8407.04647>

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