



Research Article

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A CLINICAL STUDY TO EVALUATE THE EFFICACY OF *HINGWADI CHURNA* AND *RASNADASHMULA KWATHA* IN *AMAVATA* WITH SPECIAL REFERENCE TO RHEUMATOID ARTHRITIS

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ABSTRACT

Amavata or Rheumatoid arthritis is a common disease encountered by physicians in day-to-day life. The disease is cumbersome as young aged people are mostly affected by this. Due to progressive, chronic nature of disease it affects the quality of life of patients and decreases their productivity at work. The article is about the clinical study of 15 patients of *Amavata* (Rheumatoid arthritis) registered from the O.P.D., P.G. Department of Kayachikitsa, Rishikul Campus Haridwar. The present study is aimed at finding effective treatment of *Amavata*. The drugs selected for managing the patients of *Amavata* were *Hingwadi Churna* and *Rasna Dashmula Kwatha*. In this clinical study patients got significant improvement and no complications were found during and after the clinical study.

Keywords: *Amavata*, Rheumatoid arthritis, *Hingwadi Churna*, *Rasna Dashmula Kwatha*

INTRODUCTION

Amavata (Rheumatoid arthritis) is a lifestyle disorder which has high prevalence around the globe. *Amavata* is defined as a condition where *Ama* and *Vata Dosha* are vitiated simultaneously and enters the *Trika* (Pelvic girdle) and *Sandhi* (joints) causing stiffness (*Stabdhatu*) of the body. Here, *Ama* means improperly/partially digested food or undigested *Rasa Dhatu* formed due to poor strength of *Agni*. *Acharya Madhav* has described causative factors for the disease as *Viruddhahara* (Unwholesome Diet), *Viruddhachesta* (Erroneous Habits), *Mandagni*, Sedentary Lifestyle and exercising immediately after food ¹. Its symptoms include joint pain like that of scorpion bite, swelling and stiffness in multiple joints with systemic features (*Sarvadaihika Lakshanas*) of *Ama* like *Angamarda* (myalgia), *Aruchi* (anorexia), *Trishna* (thirst), *Alasya* (laziness), *Gaurav* (heaviness), *Jwara* (pyrexia), *Apaaka* (indigestion), *Anga shunata* (oedema). The clinical presentation of *Amavata* closely mimics with Rheumatoid arthritis (RA), in accordance with their similarities in clinical features like multiple joint pain, swelling, stiffness, fever, general debility etc. Rheumatoid arthritis affects approximately 0.5-1% of the adult population worldwide ². The incidence of RA increases between 25 and 55 years of age, after which it plateaus until the age of 75 and then decreases ³. Women are affected approx. 3 times more often than men ⁴. Despite of various treatment measures available in Allopathic system of Medicine the prevalence of the disease is quite high. Moreover, Allopathic drugs have many side-effects thus, adding to the misery of the patients. So, the study was planned for effective management of *Amavata* by Ayurvedic treatment. Hence, the drugs *Hingwadi Churna* and *Rasna*

Dashmula Kwatha were selected for clinical evaluation on the management of *Amavata*.

Aims & objectives

- 1) To study the aetiopathogenesis of *Amavata*.
- 2) To assess the efficacy of *Hingwadi Churna*⁵ and *Rasna Dashmula Kwatha*⁶ on *Amavata*.

MATERIALS AND METHODS

The study comprised of 15 patients of *Amavata*. The patients were selected from OPD and IPD of Rishikul campus, Haridwar,

Ethical clearance- The research has been approved by the Institutional Ethical Committee. Written consent was taken from all the subjects before the trial and study was in accordance with ICH GCP Guidelines.

Selection of Sample: - Randomized Sampling

Type of Study: Single Blind

Duration of Study: 60 days

Selection of Drug

Hingwadi churna - 5 gm b.d. with lukewarm water 1 hour before meal.

Rasna -dashmula kwatha- 40 ml b.d. 1 hour after meal.

Assessment & Follow Up

The assessment of the patients was done at the interval of 15 days & the follow –up was done 1 month after completion of treatment.

Inclusion Criteria

- Patients having classical features of *Amavata*.
- Age group of 18-60 years.
- Patients fulfilling American College of Rheumatology (ACR) criteria, 1987.
- Both sero -positive and sero- negative cases were included in present study.

Exclusion Criteria

- Chronicity for more than 15 years.
- Having severe crippling deformity.
- Patients with other systemic diseases like Cardiac disease, Tuberculosis, Diabetes mellitus, Hypertension.
- Any other serious medically and surgically ill patients.

Criteria for Assessment

The assessment of the trial was done on the basis of following parameters:

Subjective

Objective

Subjective: The subjective assessment was done on the basis of:

Improvement in following signs and symptoms of *Amavata* as described in classics

1.	<i>Sandhishoola</i> (Joint pain)	6.	<i>Jaadya</i> (Morning stiffness)
2.	<i>Sandhishotha</i> (Joint swelling)	7.	<i>Sparshasahyata</i> (Tenderness)
3.	<i>Gaurav</i> (Heaviness in the body)	8.	<i>Apaka</i> (Indigestion)
4.	<i>Jwara</i> (Fever)	9.	<i>Bahumutrata</i> (Frequency of micturition)
5.	<i>Aruchi</i> (Loss of appetite)	10.	<i>Utsahahani</i> (Loss of vigour)

The above symptoms were graded as below

None	0
Mild	1
Moderate	2
Moderate to severe	3
Severe	4

Objective: The objective assessment was done on the basis of changes in relevant laboratory parameters and Functional parameters.

Biochemical parameters

Hb, TLC, DLC, ESR, RA Factor & CRP

Functional assessments

1. Grip strength
2. Foot pressure

3. Goniometry (Range of motion)

Statistical Analysis

Wilcoxon Signed Rank Test was applied on the subjective and functional parameters. Paired t test was applied on Biochemical parameters. Thus, the obtained results were interpreted as:

P> 0.05 Not Significant

P< 0.01 & <0.05 significant

P< 0.001 highly significant

OBSERVATIONS

Table 1: Efficacy study of drugs on subjective parameters

Subjective parameters	Median		Wilcoxon Signed Rank W	P-Value	% Effect	Result
	BT	AT				
Visual Analogue Pain Scale	3	1	-3.416 ^a	<0.01	47.5	Significant
Pain Intensity	3	1	-3.402 ^a	<0.01	60.0	Significant
Pain Frequency	4	4	-1.732 ^a	>0.05	7.3	Non –Significant
Pain Duration	4	2	-3.464 ^a	<0.001	50.0	Highly Significant
Sandhishotha	2	0	-3.355 ^a	<0.01	82.8	Significant
Gaurav	1	0	-3.213 ^a	<0.01	76.2	Significant
Jwara	1	0	-2.646 ^a	<0.01	77.8	Significant
Aruchi	1	0	-2.873 ^a	<0.01	92.8	Significant
Jadya	2	1	-3.286 ^a	<0.01	58.1	Significant
Sparshasahyata	1	0	-3.500 ^a	<0.001	77.8	Highly Significant
Apaka	1	0	-3.025 ^a	<0.01	76.2	Significant
Bahumutrata	0	0	-1.732 ^a	>0.05	25.0	Non –Significant
Utsahahani	2	2	-2.000 ^a	>0.05	14.3	Non –Significant

Table 2: Efficacy study of drugs on functional parameters

Functional Parameters	Median		Wilcoxon Signed Rank W	P-Value	% Effect	Result
	BT	AT				
Grip Strength RH	2	2	-1.732 ^a	>0.05	10.7	Non –Significant
Grip Strength LH	2	2	-2.000 ^a	>0.05	13.3	Non –Significant
Foot Pressure RL	0	0	-2.449 ^a	<0.05	75	Significant
Foot Pressure LL	1	0	-3.051 ^a	<0.01	78.6	Significant
Goniometry	2	1	-3.035 ^a	<0.01	58.1	Significant

Table 3: Efficacy study of drugs on biochemical parameters

Biochemical parameters		Mean	N	SD	SE	t-Value	P-Value	Result
Hb	BT	10.8	15	1.25	0.32	-2.155	<0.01	Significant
	AT	11.1	15	1.14	0.29			
ESR	BT	57.5	15	24.12	6.23	6.361	<0.001	Highly Significant
	AT	33.9	15	16.32	4.21			
RA Factor	BT	41.7	15	76.63	19.79	1.242	>0.05	Non –Significant
	AT	24.3	15	23.26	6			
CRP	BT	19.2	15	50.38	13.01	1.227	>0.05	Non –Significant
	AT	8.8	15	17.62	4.55			

Table 4: Estimation of overall response

	Overall Response	
	No. Of patients	% Relief
Excellent (> 75%)	1	6.7%
Marked Improvement (50-74%)	7	46.6%
Mild Improvement (25-49%)	7	46.6%
No Improvement (<24%)	0	0

RESULTS AND DISCUSSION

While observing subjective and objective assessment it was found that Statistically highly significant results were found in subjective parameters like Pain duration ($p < 0.001$) and *Sparshasahyata* ($p < 0.001$) whereas Statistically significant results were found in subjective parameters like Visual Analogue Pain Scale, Pain Intensity, *Sandhishotha*, *Gaurav*, *Jwara*, *Jadya*, *Aruchi* & *Apaka* as value of $p < 0.01$ in each. Statistically non-significant results were found in Pain frequency, *Bahumutrata* and *Utsahahani* as value of ($p > 0.05$) in each. The percentage relief in all the subjective parameters is as follow – Visual Analogue Pain Scale-47.5%, Pain Intensity-60%, Pain frequency-7.3%, Pain Duration-50%, *Sandhishotha*-82.8%, *Gaurav*-76.2%, *Jwara*-77.8%, *Aruchi*-92.8%, *Jadya*-58.1%, *Sparshasahyata*- 77.8%, *Apaka*-.76.2%, *Bahumutrata* -25% and *Utsahahani*-14.3%.

In functional parameters statistically significant results were found in foot pressure -right leg- ($p < 0.05$), foot pressure-left leg ($p < 0.01$) & goniometry ($p < 0.01$). Statistically non-significant results were found in Grip strength of both hands ($p > 0.05$). The percentage relief in functional parameters is as follow -Grip strength (Right hand) -10.7%, Grip strength (Left hand)-13.3%, Foot pressure (Right hand)-75%, Foot pressure (Left hand)-78.6% and Goniometry- 58.1%.

In biochemical parameters statistically highly significant result was found in ESR only ($p < 0.001$). Mean ESR was reduced from 57.5mm/hr before treatment to 33.9mm/hr after treatment. The mean score of Hb was 10.8gm% before treatment which increased to 11.1gm% after treatment which statistically showed significant result ($p < 0.01$). Statistically non-significant result was found in rheumatoid factor (RA Factor) and C-reactive protein (CRP) as value of $p > 0.05$ in both.

Probable mode of action of drugs *Hingwadi Churna*

The first trial drug “*Hingwadi Churna*” described by *Acharya Chakrapani* in *Chakradatta* in *Amavata Chikitsa Adhyaya* is a herbal preparation. It has 6 contents namely *Hinga*, *Chavya*, *Vid Lavana*, *Shunthi*, *Krishna-Ajaji* and *Pushkarmula*. All these drugs have *Katu Rasa* and *Katu Vipaka* except *Shunthi* which has *Katu Rasa* & *Madhura Vipaka*. Due to their *Rasa* and *Vipaka* these drugs are *Deepan*, *Rochan* and correct the *Agni*⁷. All of these are *Kapha –Vata Shamak*, thus they subside *Kapha* and *Vata* which are the principle *Doshas* behind *Amavata*. All of these have *Deepan –Pachan* properties so they prevent *Ama* formation. Moreover, *Hinga* & *Krishna Ajaji* have analgesic actions and *Shunthi*, *Chavya*, *Pushkarmula* have anti-oxidant & anti-inflammatory properties⁸.

As a whole the combined action of “*Hingwadi Churna*” can be summarized as *Kapha-Vata shamak*, *Agni -deepan*, *Ama-pachan*, *Shulahara* and *Vednasthapana*. Thus, the drug was effective in breaking the pathogenesis of *Amavata*

Rasna –dashmula kwatha

The second trial drug is “*Rasna-Dashmula Kwatha*” described by *Acharya Chakrapani* in *Chakradatta* in *Amavata Chikitsa Adhyaya*. It is also herbal preparation. It contains *Dashmula*, *Guduchi*, *Eranda-mula*, *Rasna*, *Shunthi* and *Devdaru*.

Dashmula is *Tridoshamak*, *Ama –Pachan* and has anti-inflammatory properties. Thus, it not only helps in breaking pathogenesis of disease by preventing *Ama* formation but it also relieves joint pain, stiffness and swelling. *Acharya Sushruta* has described it as *Sarvajwaranashan* so it subsides the fever⁹.

Guduchi present in it is a *Rasayana* and has anti-oxidant and immuno-modulator properties¹⁰. Rheumatoid arthritis is considered an immuno-inflammatory disease so due to its immuno-modulator properties it prevents auto-immune reactions

by inhibiting the release of inflammatory mediators & cytokines¹¹. Because of its anti-oxidant property, it prevents synovial tissue injury *Amavata* (Rheumatoid arthritis) being a chronic disorder leads to general debility. Being a *Rasayana*, *Guduchi* provides strength and vitality to the patient.

Eranda-mula is considered as a best *Vrishya* and *Vatahar dravya* by *Acharya Charka*. Thus, it subsides the symptoms caused by aggravated *Vata* like *Angamarda* (bodyache), *Shula* (pain) etc. Moreover, *Eranda mula* is *Kapha-Vata Shamak* and has anti-inflammatory, analgesic and anti-pyretic properties.

Rasna is considered best *Vatahara* drug by *Acharya Charka*. *Rasna*, *Shunthi* and *Devdaru* -all are *Kapha-Vata Shamak*, *Deepan*, *Shula-Prashamana* and have anti-inflammatory, anti-oxidant and analgesic properties¹².

All these actions of the contents of *Rasna-dashmula kwatha* resulted in *Samprapti vighatana* (breakdown of pathogenesis) of *Amavata* and provided relief in symptoms.

CONCLUSION

Amavata is a *Kapha- Vata Pradhana Tridoshaja Vyadhi* which has clinical features similar to Rheumatoid Arthritis. *Hingwadi Churna* due to its contents did *Agni Deepan* and *Ama Pachan*. Thus, break the pathogenesis of *Amavata*. *Rasna- Dashmula Kwatha* proved very effective in controlling symptoms like *Sandhishula* (Joint pain), *Sandhishotha* (Joint swelling), *Jwara* (Fever), *Jaadya* (Morning stiffness) etc.

So, it can be concluded that mild to moderate cases of *Amavata* (Rheumatoid Arthritis) can be managed effectively without any side-effects by *Hingwadi Churna & Rasna-Dashmula Kwatha*.

REFERENCES

1. Madhav,Vijayrakshit, Kanthdatta, Madhav Nidana, Amavata Nidana Adhyaya 25/1-2 edited by Shri sudarshan Shastri,Reprint-2008,, Chaukhambha Prakashan, Varanasi ;508pg
2. Harrison, Longo, Fauci, Kasper et al. Harrison's Principles of Internal Medicine.18th edition, Vol-2. The McGraw-Hill; 2738 pg.
3. Harrison, Longo, Fauci, Kasper et al. Harrison's Principles of Internal Medicine.18th edition, Vol-2. The McGraw-Hill; 2738 pg.
4. API, Siddharth N. Shah, M. Paul Anand et al. API Textbook of Medicine, 7th edition; 1160pg.
5. Chakrapanidatta, Chakradatta Amavata Chikitsa Adhyaya,25/ 24 edited by Pt.Brahmashankar Mishra, 5th edition, 2002, Chaukhambha Sanskrit Series Office, Varanasi 1983;228pg.
6. Chakrapanidatta, Chakradatta Amavata Chikitsa Adhyaya,25/ 24 edited by Pt. Brahmashankar Mishra, 5th edition, 2002, Chaukhambha Sanskrit Series Office, Varanasi 1983;226pg.
7. Archana Negi, Dr. Shweta Shukla et all. Management Of Amavata (Rheumatoid Arthritis) By Hingwadi Churna And Rasna Dashmula Kwatha, International Ayurvedic Medical Journal. Volume 4; Issue 8; August-2016
8. Archana Negi, Dr. Shweta Shukla et all. Management Of Amavata (Rheumatoid Arthritis) By Hingwadi Churna And Rasna Dashmula Kwatha, International Ayurvedic Medical Journal. Volume 4; Issue 8; August-2016
9. Archana Negi, Dr. Shweta Shukla et all. Management Of Amavata (Rheumatoid Arthritis) By Hingwadi Churna And Rasna Dashmula Kwatha, International Ayurvedic Medical Journal. Volume 4; Issue 8; August-2016
10. CP Khare , Indian Medicinal Plants-An illustrated dictionary by Central Council for Research in Ayurveda and Siddha (CCRAS)-Published literature.;662pg
11. Archana Negi, Dr. Shweta Shukla et all. Management Of Amavata (Rheumatoid Arthritis) By Hingwadi Churna And Rasna Dashmula Kwatha, International Ayurvedic Medical Journal. Volume 4; Issue 8; August-2016
12. Acharya Priyavrata Sharma, Dravyaguna Vigyan –Part-2nd, Chaukhambha Bharti Academy, Varanasi. CP Khare , Indian Medicinal Plants-An illustrated dictionary by Central Council for Research in Ayurveda and Siddha (CCRAS)- Published literature ;133pg &733pg

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