



Clinical Research

Effect of *Kshara Basti* and *Nirgundi Ghana Vati* on *Amavata* (Rheumatoid Arthritis)Krishna Thanki, Nilesh Bhatt¹, V. D. Shukla²

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Abstract

Ayurveda has taken the foremost place in the management of crippling disease, one of them is *Amavata* which can be compared with Rheumatoid Arthritis due to its clinical appearance. Due to wide spectrum of disease, much prevalence in the society and lack of effective medicament, the disease is being chosen for the study. The line of treatment described for the disease in Chakradatta can be summarized under following captions. i.e to bring *Agni* to normal state to digest *Ama*, and eliminate vitiated *Vata* and *Ama*. Thus, here *Kshara Basti* is selected for the present study as *Samshodhana* process which corrects all of above captions. It is mentioned in *Chikitsa Sutra* described by Chakradatta. *Nirgundi* has *Amavatahara* property which is stated by Bhavaprakasha, considering which *Nirgundi Patra Ghanavati* is selected as *Shamana* drug. Total 50 randomly selected patients of *Amavata* were registered among them 45 were completed the treatment. *Kshara Basti* in the format of *Kala Basti* was given to these patients and *Nirgundi Ghana Vati* was given for one month. Statistically significant improvement was found in ESR, RA factor (quantitative) and also highly significant results were found in symptoms of *Amavata*. Moderate improvement was seen in 40% of patients, 35.56% patients got marked improvement, while mild improvement was found in 24.44% of patients.

Key words: *Amavata*, *Kshara Basti*, *Nirgundi Ghana Vati*, Rheumatoid Arthritis

Introduction

In present time, due to modern life style, hectic schedule, stress, and many such reasons, incidence of diseases are increasing, one of them is *Amavata*. The concept of autoimmunity is well-explained under the concept of *Ama*, an intermediate product generated due to the deranged metabolism of digestive fire triggering a chronic inflammatory process in the body. Rheumatoid arthritis is a chronic inflammatory disease. In the whole world, rheumatic disease is the most common cause of physical impairment in society. The lives of more than one million people are physically impaired by rheumatic disorders and one fifth of these are severely disabled. The prevalence rate of this disease is about 3% with a male to female ratio of 1:3.^[1] It occurs throughout the world in all climates and ethnic groups. Till date, about 39 Research activities have been carried out in P.G. Institute,

Jamnagar. Previously in Jamnagar, eight activities have been done on *Basti*, while nine on *Virechana Karma*, and only three on *Kshara Basti*. This number itself suggests its large occurrence and faith of patients in Ayurvedic Management. Only three research activities had been done on *Kshara Basti* in Jamnagar.^[2]

Shodhana (bio-purification), *Shamana* (pacification) and *Nidana Parivarjanam* are main modalities of treatment for any disease.^[3] So, in the present study, *Kshara Basti* has been selected as *Shodhana Chikitsa* which is mentioned in *Chikitsa Sutra* described by Chakradatta^[4] and *Nirgundi Ghana Vati* has been selected as *Shamana Chikitsa*.

Aims and Objectives

- To evaluate the efficacy of “*Kshara Basti* along with *Nirgundi Ghana Vati*” on *Amavata*.
- To evaluate the efficacy of *Kshara Basti* along with *Nirgundi Ghana Vati* on Hematological and Bio chemical parameters especially ESR and R.A. Factor (quantitative) test.

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Materials and Methods

Total 50 patients fulfilled criteria for diagnosis of the disease Amavata (Rheumatoid Arthritis) were selected from the O.P.D. and I.P.D. of Panchakarma Department of I.P.G.T. and R.A., Jamnagar. This study was approved by Institutional Ethics Committee.

Inclusion criteria

1. Patients having classical features of Amavata like Angamarda, Aruchi, Trishna, Hrillasa, Gaurava, Jwara, Shula, Shotha etc.^[5] were selected for the present clinical research work. Detailed research proforma was prepared incorporating all the clinical features seen in the disease Amavata (Rheumatoid Arthritis).
2. The patients who had fulfilled the revised criteria for Rheumatoid arthritis fixed by the American college of Rheumatology in 1987.^[6]

Rheumatoid factor positive and negative both cases were included.

Exclusion criteria

- Chronicity of more than 10 years
- Having severe crippling deformity
- Having cardiac disease, pulmonary tuberculosis and pregnant women
- Age less than 18 years and more than 60 years

Plan of study

The selected patients were given Kshara Basti along with Eranda Taila Anuvasana Basti in format of Kala Basti^[7] i.e., 16 days.

- Deepana, Pachana with Shunthi Churna for three days
- Sarvanga Nirgundi Patra Pinda Sweda before giving Basti
- After completing Basti, Nirgundi Ghana Vati 2 tab (500 mg/tab) thrice a day for 30 days. Nirgundi Ghana Vati is prepared from Nirgundi Patra Kwatha

Total Duration: 46 days.

Laboratory investigations

- Rheumatoid Factor (Quantitative) test
- Erythrocyte Sedimentation Rate by Westergren method
- Serum uric acid (for exclusion)
- X-ray of the affected joint
- Routine urine, blood examination

Criteria for assessment

The results of therapy were assessed on the basis of clinical features of the disease Amavata, which are mentioned in Ayurvedic classic as well as with the help of criteria fixed by American Rheumatism Association in 1987. The scoring pattern adopted for assessment of clinical features is as follows:

	Score
1. Sandhi shoola (Pain in joints)	
• No pain	00
• Mild pain of bearable nature, comes occasionally	01
• Moderate pain, but no difficulty in joint movement	02
• Slight difficulty in joint movements due to pain, Requires medication and may remain throughout the day	03
• More difficulty in moving the joints and pain is severe, Disturbing sleep and requires strong analgesics	04
2. Sandhishotha (Swelling of the joints)	
• No swelling	00
• Slight swelling	01
• Moderate swelling	02
• Severe swelling	03
3. Sandhistabdhata (Stiffness of the joints)	
• No stiffness or stiffness lasting for 5 min	00
• Stiffness lasting for 5 min to 2 hrs.	01
• Stiffness lasting for 2 to 8 hours	02
• Stiffness lasting for more than 8 hours	03
4. Sandhisparsha Asahyata (Tenderness of joints)	
• No tenderness	00
• Subjective experience of tenderness	01
• Wincing of face on pressure	02
• Wincing of face with withdrawal of affected parts on Pressure	03
• Resists to touch	04

Overall assessment of the therapy

Complete remission	: 100% relief
Marked improvement	: ≥75% relief
Moderate improvement	: ≥50% to <75% relief
Mild improvement	: ≥25% to <50% relief
Unchanged	: <25% relief

Observation and Results

Effect of therapy on chief complaints such as Sandhishoola, Sandhishotha, Sandhistabdhata and Sandhisparsha Asahyata is found to be statistically highly significant ($P > 0.001$) [Table 1]. Also statistically highly significant ($P > 0.001$) results were found on general symptoms such as Angamarda, Aruchi, etc.; associated symptoms such as Daurbalya, Agnimandya, Praseka, etc. and on functional capacity parameters [Tables 2-4].

The retention time of Kshara Basti upto 5mins was observed in maximum number of patients (60%) and retention time of Anuvasana Basti - 3 to 6 hrs was observed in 62.22% patients [Tables 5,6].

Table 1: Effect on chief complaints

Chief complains	N	B.T.	A.T	%	SD	SE	T	P
Sandhishoola	45	40.02	8.77	78.06	11.13	1.66	18.82	<0.001
Sandhishotha	45	16.26	2.53	84.42	7.45	1.11	12.35	<0.001
Sandhistabdhata	45	31.02	5.22	83.16	9.54	1.42	18.12	<0.001
Sandhisparsha Asahyata	45	29.26	4.51	84.58	10.26	1.35	16.17	<0.001

The effect of therapy on Erythrocyte sedimentation rate and RA factor (Quantitative) was found to be statistically highly significant ($P > 0.001$) and significant ($P > 0.01$) respectively [Tables 7,8].

In overall effect of therapy maximum number of patients (40%) got moderate improvement [Chart 1].

Discussion

Maximum number of patients (40%) belonged to the age group of 41-50 years, which shows its predominance in the middle

Table 2: Effect on general symptoms

General symptoms	N	B.T.	A.T.	% of relief	SD	SE	T	P
Angamarda	45	2	0.22	88.88	0.42	0.62	28.36	<0.001
Aruchi	43	2	0.06	92.22	0.47	0.07	25.48	<0.001
Trishna	32	2	0.23	81.08	0.68	0.12	13.46	<0.001
Hrillasa	22	2	0.13	96.15	0.27	0.05	32.52	<0.001
Jwara	31	2	0	100	0	0	-	
Apaka	41	2	0.07	96.34	0.26	0.04	46.79	<0.001
Gaurava	44	2	0.34	82.95	0.52	0.07	20.93	<0.001

Table 3: Effect on associated symptoms

Associated symptoms	n	B.T.	A.T.	% of relief	SD	SE	T	P
Daurbalya	45	2	0.644	67.77	0.52	0.07	17.19	<0.001
Agnimandya	42	2	0.047	97.61	0.21	0.03	58.70	<0.001
Praseka	6	2	0	100	0	0	-	
Kandu	14	2	0.28	85.71	0.46	0.12	13.68	<0.001
Antrakunjana	16	2	0.125	93.75	0.34	0.08	21.95	<0.001
Anaha	31	2	0.266	83.87	0.54	0.09	17.26	<0.001

Table 4: Effect on functional capacity

Functional capacity	N	B.T.	A.T.	% of relief	SD	SE	T	P
Walking time	45	27.6	20.2	26.81	3.22	0.48	15.37	<0.001
Gripping strength	45	75.77	132.8	75.24	22.52	3.35	16.97	<0.001
Foot pressure	45	9.11	13.22	45.12	1.94	0.28	14.17	<0.001
General function	45	2.4	0.62	74.07	0.63	0.09	18.76	<0.001

Table 5: Effect on ESR

Gr.	N	Mean score			% A.T. ₁	% A.T. ₂	S.D. ₁	S.D. ₂	S.E. ₁	S.E. ₂	t ₁	t ₂	P ₁	P ₂
		B.T.	A.T. ₁	A.T. ₂										
A	45	61.28	50.62	44.86	17.40	28.42	18.48	25.31	2.75	3.77	3.87	4.61	<0.001	<0.001

Table 6: Effect on rheumatoid factor

Gr.	N	Mean score			% A.T. ₁	% A.T. ₂	S.D. ₁	S.D. ₂	S.E. ₁	S.E. ₂	t ₁	t ₂	P ₁	P ₂
		B.T.	A.T. ₁	A.T. ₂										
A	38	268.71	227.47	209.51	14.95	21.46	89.09	116.74	14.45	18.93	2.78	3.04	<0.01	<0.01

age group. This data is slightly in accordance with the modern findings, that the onset is most frequent during the fourth and fifth decades of life with 80% of all patients developing disease between the age of 35 and 50 years. In this study, majority of the patients were female (91.11%) as compared to male. Textual references also reflect the predominance of rheumatoid arthritis in females. Majority of the patients were having Mandagni (97.77%). Mandagni is the root of all the disease, particularly of Amavata. In the present study, majority of the patients had Madhyama (46.66%) and Krura Kostha (57.77%). It justifies the finding of Prakriti. The study reveals that maximum number of patients possesses Vata Pitta Prakriti i.e., 48.88%. According to Acharya Vagabhata, Dwidoshaja Prakriti is Nindya, Hemadri gives commentary on that Vata-Pitta Prakriti is Himatama, persons who having this Prakriti, are more prone to disease.^[8] Maximum numbers of patients were having history of gradual onset (86%) and chronicity of <2 years (51%). The disease runs a chronic course and also becomes chronic due to the non-availability of good treatment in contemporary medicine. It may be due to the fact that Amavata is a chronic disease and usually manifests itself over a period of a few months. Most of the patients were found to be indulged in Viruddha Ahara (93%), Atiguru (63%), Visamashana (42%), Snigdha Ahara (40%), Divasvapna (66%), Nischalatva (55%), Bhojanottara Vyayama (31%), Chinta (69%). All these factors lead to Mandagni and consequently to formation of Ama. So, it can be concluded that all the above mentioned factors play an important role in precipitation and aggravation of the disease Amavata. These data also support the etiology of Amavata, mentioned in classics. Kshara Basti comprises of Saindhava, Guda, Chinchu, Shatahva and Gomutra. In this Basti, maximum quantity is of Gomutra, which is having Kshara Guna. Kshara has the property of Lekhana and Vishoshana,^[9] which are antagonistic to Ama and is very much required in the conditions like Amavata. But it must be kept in the mind that, it may further vitiate Vata. Thus, keeping this view in mind Eranda Taila Anuvasana was given in the format of Kala Basti. Eranda has a typical property of Ama Pachana.^[10] Chinchu to be taken in Kshara Basti should be in Pakva stage that is having Vata-Kapha Shamaka^[11] property. Regarding Purana Guda to be used, it is Laghu, Pathya, Annabhishyandi, Agnivaradhaka and Vata-Pittaghna.^[12] Saindhava due to its Sukshma and Tikshna^[13] property helps the Basti Dravya to reach up to the molecular level. It is capable of liquefying the viscid matter and breaking it into minute particles. Thus solves both the purpose; to curing the disease and to purify the body. Nirgundi Ghana Vati, which was given after Basti has a definite action on vitiated Vata Kapha Dosha. Specially, Tikta and Katu Rasa present in Nirgundi possess the antagonistic properties to that of Ama and Kapha which are the chief causative factors in this disease. Because of their Agnivaridhikara property

Table 7: Retention time of Kshara Basti

Retention time of Kshara Basti	No. of pt.	Percentage
Upto 5 min	27	60
6 to 10 min	18	40

Table 8: Retention time of Anuvasana Basti

Retention time of Erand Taila Anuvasana Basti	No. of pt.	Percentage
3 to 6 hrs	28	62.22
6 to 9 hrs	14	31.11
9 to 12 hrs	3	6.66

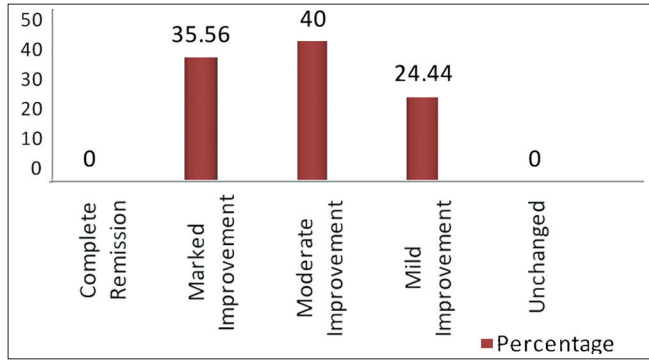


Chart 1: Overall effect of therapy

they increase digestive power which also digests *Amarasa* and reduces excessive production of *Kapha* and also removes the obstruction of the *Srotas*. Because of *Tikshna Guna* and *Ushna Virya* it also alleviates vitiated *Vata* and reduces *Srotorodha* and pain. Thus *Nirgundi* controls *Ama* and *Vata* together and minimize the process of pathogenesis. *Chincha*, *Gomutra*, *Shatahva*, *Nirgundi* have anti-oxidant and anti-inflammatory properties, which reduces inflammatory process in the body.

Conclusion

Lastly, it can be concluded that *Amavata* looks similar to Rheumatoid Arthritis in its clinical appearance and *Kshara Basti* along with *Nirgundi Ghana Vati* is effective in the treatment of *Amavata*. Also, it gives significant results on rheumatoid factor and highly significant result on ESR which is used for diagnosis of rheumatoid arthritis.

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हिन्दी सारांश

क्षार बस्ति एवं निर्गुण्डी घनवटी का आमवात(रुमेटोइड आर्थ्राइटिस) पर प्रभाव-एक चिकित्सीय अध्ययन

कृष्णा थानकी, निलेष भट्ट, वी. डी. शुक्ला

आयुर्वेद का गंभीर रोगों की चिकित्सा में अग्रणी स्थान है। उनमें से एक आमवात है। आधुनिक विज्ञान के दृष्टिकोण से रुमेटोइड आर्थ्राइटिस को उसके नैदानिक अभिगम के अनुसार आमवात के अंतर्गत लिया जाता है। रोग के व्यापक प्रसार, लोगों में सामान्यतौर पर पाया जाना और प्रभावशाली चिकित्सा की कमी के कारण इस रोग को प्रस्तुत अध्ययन के लिये चुना गया है। चक्रदत्त में वर्णित आमवात के चिकित्सा सूत्र को निम्न तरीके से संक्षिप्त में लिया जा सकता है; यथा-अग्नि को सम्यक स्थिति में लाना, आम का पाचन करना और कुपित वात एवं आम का शोधन करना। इसलिये प्रस्तुत अध्ययन में उपरोक्त सभी कार्य करनेवाली क्षारबस्ति को चुना गया। क्षारबस्ति का उल्लेख चक्रदत्त द्वारा वर्णित आमवात के चिकित्सा सूत्र में है। भावप्रकाश में निर्गुण्डी को आमवातहर बताया है। इसलिये निर्गुण्डी घन वटी को शमन चिकित्सा के लिये चुना गया है। प्रस्तुत अध्ययन में कुल पंजीकृत ५० आमवात के रूग्णों में से ४५ रूग्णों ने चिकित्सा पूर्ण की। क्षारबस्ति, कालबस्ति के रूप में एरण्डतैल अनुवासन बस्ति के साथ दी गई। उसके बाद १ माह के लिये निर्गुण्डी घनवटी २ वटी (१ ग्राम) दिन में ३ बार दी गई। इ.एस.आर. एवं आर.ए.क्रानटिटेटिव परीक्षण पर सांख्यिकीय महत्वपूर्ण सुधार पाया गया। जबकि आमवात के लक्षणों पर अत्यधिक महत्वपूर्ण सार्थक परिणाम पाए गये। इनमें से ३५.५६% रूग्णों में उत्तम परिणाम मिले, जबकि ४०% रूग्णों को मध्यम लाभ मिला और २४.४४ प्रतिशत में अंशतः लाभ पाया गया।