



Research Article

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EFFECT OF DHATRI BHALLATAKA VATI IN AMAVATA WITH SPECIAL REFERENCE TO RHEUMATOID ARTHRITIS

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ABSTRACT

Amavata is commonest chronic inflammatory joint diseases. It continues to pose challenge to physician due to severe morbidity and crippling nature. There is need for more effective managements with preventive and restorative effects. It is mentioned that Dhatri Bhallataka Vati act like nectar in the management of Amavata. In present study 60 patients were randomly divided in two groups and administered Dhatri Bhallataka Vati with Goghruata & Sukoshna Jala as Anupana respectively. Results shown significant results in both the groups. It is also revealed that it acts as good Rasayan in Amavata.

Keywords: Amavata, Bhallataka, Rasayan

INTRODUCTION

Amavata is commonest chronic inflammatory joint diseases with pain and swelling of joints in symmetry. It is one of the outcome of changes in dietary habits, life style & environment. Ama produced due to Mandagni¹ and Vitiated Vata² are two major factors which results in Amavata. Nearest clinical entity of Amavata is Rheumatoid Arthritis³. World epidemiological figures show the prevalence of Rheumatoid Arthritis as approximately 0.8%, of which woman are three times more affected than men⁴. It is a debilitating disease in view of its chronicity and complications. Further it can also affect multiple other organ of the body if not managed in time, so sometimes it is referred as systemic illness or rheumatoid disease. Therefore, it has taken the foremost place among the joint disorders. It continues to pose challenge to physician due to severe morbidity and crippling nature and claiming the maximum loss of human power making it a biggest worldwide burning problem irrespective of races. Management of this disease looks merely insufficient. There is need for more effective managements in early as well as chronic stage with preventive and restorative effects. Bhallataka is one of the important drug used in Amavata. Many works are done before, where Bhallataka is used in different forms but no study is done in Vati form. Bhallataka is also a Rasayan. It is mentioned that Dhatri Bhallataka Vati act like nectar in the management of Amavata.⁵ So for present study Dhatri Bhallataka Vati is selected. Therefore, keeping the above points in view the present study is planned, to evaluate the effect of Dhatri Bhallataka Vati in Amavata with special reference to Rheumatoid Arthritis.

MATERIALS AND METHODS

Aim & objectives

To study the effect of Dhatri-Bhallataka Vati in the management of Amavata.

To study comparative effect of Dhatri-Bhallataka Vati in the management of Amavata with Goghruata & sokoshana Jala as Anupana.

To study the Rasayan effect of Dhatri-Bhallataka vati in the management of Amavata.

Study Design

The present study is, three months open randomized comparative clinical trial. 60 Patients of Amavata were included in the study and divided randomly into two groups.

Group A - Dhatri Bhallataka vati 120 mg BD after food with Goghruata

Group B - Dhatri Bhallataka vati 120 mg BD after food with Sukhoshna Jala

Follow up was taken after every 15 days.

After the study period the data collected is statistically analyzed and results were drawn.

Follow up is also taken after 1 months after completion of study period to analyze the Rasayan effect of Dhatri Bhallataka Vati.

Dhatri Bhallataka vati

Suddha Bhallataka 2 part, Haritaki, Bibhitaki, Amalaki, Sunthi, Marich & Pippali each 1 part, Krishna Tila and Puran Guda each – 2 part.

Criteria for inclusion

1. Patients with classical signs & symptoms of Aamavata like Sandhi Shotha with Ruja, Vrishchika Danshavata Vedana, Stabdha Gatra, Daha etc.⁶
2. Patients were included irrespective of age and sex.

Criteria for exclusion

1. Patients with other systemic diseases.
2. Aamavata with upadravas like Jwara, Hrudgraha, Bhrama, Chhardi & Sarvadaihiik Saam Lakshanas.⁷

3. Pitta Pradhan Prakruti persons & Garbhini.

Criteria for assessment

1. Changes in Classical signs and symptoms of Amavata with the help of grading.
2. Changes in signs and symptoms based of ACR criteria⁸ for the classification of Rheumatoid Arthritis with the help of grading.
3. Changes in RA test & ESR levels.

OBSERVATIONS

Age - 60 patients of this study were between the ages of 20-70 yrs. Maximum patients are in the age group of 30-50 yrs (58%). In this stage of life Vyadhi Kshmatwa gradually decreases and accumulation of Dosha occurs, particularly Vata Dosha which acts as major predisposing factor for this disease process. Thus this age group is more prone for this disease. Modern texts also agree with this, that the disease starts most commonly, between the third to fifth decades of life.

Gender - In this study, it is observed that majority patients were female (63%). Predominance of female was higher compared to the text. The hormonal differences give an obvious explanation for the male/female ratio in RA susceptibility. Such as prolactin which have well established immuno regulatory effects. So oral contractive use increased risk of RA development.

Occupation - The maximum number of patients were House wives & those who are doing sedentary work (35% & 48%) as the maximum patients were female. The nature of house hold work, due to Vega Dharana, irregular dietary habits would have probably triggered disorder more in females. More sedentary work will responsible for Ama production 13% were laborers and other 4% was students.

Socio-economic status - As the study was conducted in a institution level the maximum percentage of patients inflow were belong to middle class (48%), 35% patients were low and 17% of higher middle class also registered. Occurrence of high % mobility in lower class may be due to malnutrition & In middle class due to sedentary work.

Dietary habits - Dietary habits of patients give a clue about the etiological factors, in the series of 60 patients. Mixed diet habits found more (60%) than veg diet (40%) in this study sample. It shows that in comparison to that people who are pure vegetarians the people of mixed diet habit are more prone to develop Amavata. 55% were having irregular dietary pattern which may be of Anashana, Adhyashana etc, and leads to start disease process in the body. Amla, Katu rasa predominant diet consumed by maximum patients (70%). All these leads to exacerbation of Vata and thus affects Agni, hence Ama production starts.

Addiction - the maximum patients were highly addicted to tea (60%), smoking (30%), alcohol (28%) tobacco (8%). The addition is said to be cause of Mandagni and Dhata kshaya which leads to Vata Prakopa and deranged immunity. Remaining 15% were not addicted by anything

Prakriti - All the patients in the study were of Dvandaja doshic constitution. Majority of them were having vatakapha prakriti (42%). Thus they are more prone to Vatakapha disorder like Amavata. The samprapti of the disease indicates the involvement of Ama (similar quality of Kapha) and vata chiefly.

Agni & Kostha - Incidence of Mandagni (63%) and Madhyam Kostha (60%) was highest among the patients of this series indicating etiological importance of Mandagni & Kapha in involvement this disease. 30% of patients were found with Vishamagni which shows the vata dosha predominance. Madhya Kostha signifies the involvement of Kapha dosha in maximum no. of patients. 45% patients also were having Krura Kostha

which proves the involvement of Prakupita Vata in the disease process.

Rheumatoid factor - The presence of Rheumatoid factor does not establish the diagnosis of RA, but it can be of prognostic significance, because patients with high titres tend to have more severe and progressive disease with extra - articular manifestation. In this series 90% patients were sero positive, while 10% patients were sero negative for RA Factor.

Chronicity - Maximum patients of this study showed chronicity <1yrs. (55%). 35% patient showed chronicity in between 1-3 yrs & 2 patient recorded with more than 4yrs chronicity. Observation may reflect the chronic nature of the disease. So it can say that chronicity is the hall mark of the Amavata. The data also has given the clue that the disease may aggravate within a very short time period. (i.e., <1yrs.)

Joint involvement - The collective data reveals that maximum number of patients presented with involvement of PIP & MCP & MTP joints (85%), followed by knee joint (65%), wrist joint (50%). This is suggestive of the pattern of joint involvement and it proves that the PIP joint, Wrist joint, Knee joints are prone to be affected in this disease. It is worth nothing here that the pattern found in present study was nearer to the textual references.

General Symptoms - Among the general symptoms of the disease, Angamarda, Aruchi, & Gaurav was maximum reported in patients (80%, 85%, 91%), Jwara and bhrm were found in very less no. of patients (23%, 26%). Hridgraha, was not seen in any patients. So it can be said that general symptoms are usually associated with this disease very often.

Cardinal symptoms - All the patients in this trial found to have suffered from all the cardinal features like - sandhi shula, sandhi graha, sparsasahata (100%), sandhi shotha is found in 90% patients. No Sandhi Raga was found in this series.

RESULT & DISCUSSION

Effect on classical signs & symptoms (Table 1)

When the patients were assessed for the associated symptoms, it was observed that patients showed relief in signs & symptoms in following order Gaurava (71.67%). Alaysa (65%), Aruchi (60%), Angamarda (55%), Asyavairasya (48.34%), Trushna (45%), Vibaddhata (43.33 %), Apaka (40%), Daurbalya (40%), Bahumutrata (30%), Antrakujan (21.67%), Jvara (15%), Bhrama (13.34%)

Effect of therapies on signs & symptoms based of ACR criteria (Table 2)

All the patients in both groups appeared with cardinal signs & symptoms of Amavata. Both the therapies were found significant in relieving the symptoms.

On duration of morning stiffness: - In both the groups' highly significant improvement was recorded in the duration of morning joint stiffness. However, the percentage was found to be higher in group-A (44.7%) compared to Group-B (30%).

Vitiated Vata propels Ama to Sandhis replacing Shleshaka Kapha. Hence, normal function of Shleshaka Kapha is hampered, leading to morning stiffness. As Stambha is Sheeta Gunatmaka, Ushna Virya and Tikta Rasa of Dhatri Bhallataka Vati helps in Vatashamana and Amapachana and relieves morning stiffness.

On severity of pain: The response in Sandhi Shula by Group-A was overwhelming (52.1%) when compared to 37.7% obtained by Group-B. Statistically both are significant in different 'p' level former was highly significant p<0.001 where later was significant.

Ushna, Tikta rasa properties, Dhatri Bhallataka Vati reaches up to the subtle levels and brings about both Amapachana as well

as removal of obstruction resulting in to Vatanulomana and helps to relieve pain in Amavata.

On swelling: Patients of group-A shown 62.7% result whereas Group-B shown improvement of 48.8%. However, a group provided better relief than B group.

When Ama obstructs the micro channels of body, it causes accumulation of Malabhavas i.e. Kleda which leads to symptom Sandhishotha. Due to Tikta-Katu rasa of Dhatri-Bhallataka Vati it does Amapachana and Kleda Shoshana. Which helps to reduce the Shotha.

On tenderness: Group-A gave a good result in joint tenderness. (57% relief). The score was slightly lowered in Group-B to 43%. Although both Group provided a result which is highly significant at P<0.001.

Tenderness is mainly due to inflammation of joint capsule. Dhatri-bhallataka vati by Vatashamana and Kleda Pachana might have reduced tenderness.

Effect on RA test & ESR (Table 3)

No change is seen in RA factor before and after treatment is seen. In Group A result in ESR changes is more significant than Group B.

Comparative study

When the effect of Dhatri Bhallataka in Amavata with Anupana Gogruta & Sukoshna Jala is compared its showed no significant difference except ESR levels where Group A showed better results than Group B.

Study for rasayana effect (Table 4)

Further study has done to evaluate Rasayana effect. For that after completion of study period follow up is done after 1 months. The data collected shows the reappearance of cardinal signs and symptoms observed only in 13.54% in Group-A and only in 17.36% patients in Group-B. It's clearly reviles that Dhatri Bhallataka Vati give highly significant Results as Rasayan.

Overall effect (Table 5)

The overall effect of both group is shown under below-

Group-A: The mean of B.T. was 7.81, while that of A.T. was 7.75.

It statistically highly significant at p<0.001.

Group-B: The mean of B.T. was 7.65, while that of A.T. was 7.59.

It showed statistically highly significant at p<0.001.

Mode of action

Dhatri-Bhallataka Vati have Bhallataka, Triphala, Trikatu, Krishna Tila and Puran Guda in it. By Kashaya Rasa, Laghu Guna and Ushana Veerya Bhallataka have properties like Chedan, Bhedan, Mutrasangrahan, it is also Ama Pachaka and Rasayan. Triphala have properties like Deepana, Saran, Balakar, Tridoshaghna and is also Rasayan. Trikatu is Ushna Veeryatmaka, Ruchikara, Agnideepak, does Chedan of Kapha. Shunthi by its Laghu Guna, Katu Rasa and Ushna Veerya it does Amapachana. Krishnatila is Balya, Rasayan, Vaataghna, and importantly Vishghna so counters the Visha properties of Bhallataka and reduces its Vishakta Lakshanas and help to act it like nectar.

Table 1: Changes in Classical Signs & Symptoms of Amavata

General Symptoms	Group-A		Group-B		Total		In %		Relief In %
	B.T.	A.T.	B.T.	A.T.	B.T.	A.T.	B.T.	A.T.	
Angamarda	25	8	23	7	48	15	80	25	55
Aruchi	26	7	25	8	51	15	85	25	60
Trishna	19	6	20	6	39	12	65	20	45
Alasya	24	4	23	4	47	8	78.33	13.33	65
Gourav	27	5	28	7	55	12	91.67	20	71.67
Jwara	6	2	8	3	14	5	23.33	8.33	15
Apaka	15	3	16	4	31	7	51.67	11.67	40
Vibandha	17	4	18	5	35	9	58.33	15	43.33
Antrakujan	10	4	11	4	21	8	35	13.33	21.67
Asyavairasya	21	5	19	6	40	11	66.67	18.33	48.34
Bhrama	7	3	9	5	16	8	26.67	13.33	13.34
Dourbalya	15	4	18	6	33	9	55	15	40
Nidra Viparyaya	10	2	12	4	22	6	36.67	10	26.67
Bahumutrata	15	5	14	6	29	11	48.33	18.33	30

BT: Before Treatment, AT: After Treatment

Table 2: Changes in signs and symptoms based of ACR criteria

Changes in	Group	BT		AT		% Relief	Wilcoxon Signed Ranks Test Z	P
		Mean	Sd	Mean	Sd			
Joint score	Group-A	2.03	.76	1.63	.66	19.7	2.252	0.024 Sig
	Group-B	2.03	.76	1.87	.57	7.9	0.991	0.322 NS
Duration of morning stiffness	Group-A	2.54	.57	1.40	.67	44.7	4.326	<0.001 HS
	Group-B	2.53	.57	1.77	.50	30.0	4.234	<0.001 HS
Severity of Pain	Group-A	2.57	.50	1.23	.43	52.1	4.681	<0.001 HS
	Group-B	2.55	.50	1.60	.62	37.7	4.349	<0.001 HS
Tenderness	Group-A	2.61	.49	1.13	.50	57.0	4.585	<0.001 HS
	Group-B	2.63	.49	1.50	.57	43.0	4.434	<0.001 HS
Swelling	Group-A	2.60	.49	.97	.55	62.7	4.714	<0.001 HS
	Group-B	2.59	.49	1.33	.54	48.8	4.594	<0.001 HS

BT: Before Treatment, AT: After Treatment

Table 3: Changes in ESR level

ESR	BT		AT		Paired t	P
	Mean	Sd	Mean	Sd		
Group-A	21.5	4.569	16.96	4.358	31.994	<0.001 HS
Group-B	20.53	3.502	17.93	3.433	16.656	<0.001 HS

BT: Before Treatment, AT: After Treatment

Table 4: Rasayana effect of Dhatri Bhallataka Vati

Symptoms	Group A		Group B	
	Yes	No	Yes	No
Reappeared				
Pain	10	20	12	18
Morning stiffness	5	25	7	23
Tenderness	6	24	8	22
Swelling	1	29	3	27
Angamarda	4	20	3	20
Aruchi	2	24	4	21
Agnimandya	5	25	6	24
Angagourav	6	24	7	23
In %	13.54	86.46	17.36	82.64

Table 5: Overall result of Dhatri Bhallataka Vati in Amavata

Overall Effect	Group-A	Group-B
No change	0	1
Mild change	9	23
Moderate change	21	6
Good change	0	0

Overall Dhatri Bhallataka Vati by its Kashaya_Katu Rasa, Laghu Guna and Ushana Veerya helps in Agnivaradhana, Amapachan and Vatdosha Shamana at subtle level. It also helps to clear the obstruction in srotas and does kleda pachan by its chedan, bhedan & Saran Properties. Thus by Samprapti Vighatana it helps to relieve from the signs & symptoms of Amavata. Bhallataka, Triphala, Tila are well known Rasayana and Tridhoshaghana drug which helps to halt the further progress of the disease and prevents complication. Goghruta and Sukoshna Jala are also have Agnidipaka & Amapachaka properties, as Anupana they enhance the action of Dhatrihallataka Vati. Where Goghruta as Anupana have additional benefit as it Tridoshaghana, Rasayan and Agad property which counters Visha properties of Bhallataka.

CONCLUSION

It can be concluded that, Dhatri Bhallataka Vati was found very effective in alleviating the symptoms of Amavata in both the groups. No significant difference in effect of Dhatri Bhallataka Vati with Goghruta and Sukoshna Jala as Anupana are found except in ESR levels, were Goghruta as Anupana shows better results than Sokoshana Jala. Dhatri Bhallataka Vati acts as a good Rasayan in Amavata which can prevent the further progress & complication.

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