Original Article

Clinical evaluation of efficacy of *Alambushadi Ghana Vati* and *Vaitarana Basti* in the management of *Amavata* with special reference to rheumatoid arthritis

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Abstract

The clinical presentation of *Amavata* closely mimics with the special variety of rheumatologic disorders called rheumatoid arthritis (RA). The *Ayurvedic* approach toward the treatment of *Amavata* is the need of present era as no system is successful in providing the complete cure to this disease. *Amavata* is a challenging and a burning problem of medical science. Prevalence of RA is approximately 0.8% of the population. Due to wide spectrum of disease, much prevalence in the society, and lack of effective medicine, the disease had been chosen for the study. The aim of the research was to study the efficacy of *Alambushadi Ghana Vati* and *Vaitarana Basti* in the management of *Amavata* (RA). It was a single-center, randomized, open-clinical study. In the present study, 30 clinically diagnosed patients of *Amavata* were selected and randomly divided into two groups by lottery method. *Alambushadi Ghana Vati* was given in dose of two tablets (each 500 mg) three times in a day with lukewarm water after meal for 30 days, while *Vaitarana Basti* on alternate day (15 *Basti*) had been given simultaneously in the second group along with drug of first group. Statistical analysis was done using InStat GraphPad 3 Software. Wilcoxon matched pairs signed ranks test was used for the analysis of nonparametric data, while paired *t*-test was used for parametric data analysis and Mann–Whitney test and unpaired *t*-test were used for intergroup comparison. Statistically highly significant (HS) improvement was found in erythrocyte sedimentation rate, and HS results were found in symptoms of *Amavata* when the *Vaitarana Basti* was used along with *Alambushadi Ghana Vati*. With excellent relief in 20% patients, significant relief in 60% patients, moderate relief in 13.33% patients, whereas mild relief in 6.66% patients. On comparing the effect of two therapies, it can be concluded that Group B (*Alambushadi Ghana Vati* and *Vaitarana Basti*) provided better relief than Group A (*Alambushadi Ghana Vati*) in most of the sign and symptom of the disease at significant level.

Keywords: *Alambushadi Ghana Vati*, *Amavata*, rheumatoid arthritis, *Vaitarana Basti*

Introduction

In the present era, due to modern life style, hectic work schedule, stress, and many such reasons, incidence of disease is increasing, and one of them is *Amavata*, which can be compared with rheumatoid arthritis (RA) due to its clinical presentation. The disease is being chosen for the study due to its widespread clinical spectrum, increased prevalence, and lack of effective medicaments. Prevalence of the disease is approximately 0.8% of the population and about 80% of people develop this disease between the age of 35 and 50 years.[1]

According to the nature of disease, it is essential to plan such therapy which has *Ama* and *Vatahara* properties. The line of treatment described for the disease in *Chakradatta Amavatachikisa Prakarana* includes *Langhana, Swedana* use of *Tikta* and *Katu* drugs and if needed *Virechana* and *Basti*.[2] This study has been under taken to evaluate role of *Shamana* drug along with *Shodhana* therapy *(Virechana Basti*). Hence, in the present study, *"Alambushadi Ghana Vati"* has been selected as *Shamana Yoga* while "*Vaitarana Basti"* has been selected for study as *Samshodhana* process.

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Aims and Objectives

1. Clinical evaluation of efficacy of *Alambushadi Ghana Vati* and *Vaitarana Basti* in the management of *Amavata* (RA).

Materials and Methods

Selection of patient

Thirty patients of *Amavata* were selected from *Kayachikitsa* OPD and IPD of National Institute of Ayurveda, Jaipur. The case selection was regardless of age, sex, occupation and socio-economic conditions. Both acute and chronic phases of *Amavata* patients were taken for the study, following the ACR criteria of the diagnosis of RA in modern medicine and the clinical features of *Amavata* described in *Madhava Nidana*.[3]

Study design

Present study is single center, open labeled randomized (lottery method) clinical trial.

Inclusion criteria

1. The patients between the age group of 16–70 years of either sex presenting with the clinical features of *Amavata* like pain, stiffness and swelling in multiple joints along with features of *Ama* like loss of appetite, indigestion and fever
2. Patient diagnosed for RA on the basis ACR criteria
3. Patient of *Amavata* (RA) having chronicity <10 years.

Exclusion criteria

1. Patients of age below 16 years and above 70 years of either sex
2. Chronicity of *Amavata* more than 10 years
3. Patients having severe crippling deformities
4. Patients suffering from paralysis
5. Patients having neoplasm of spine, gout, ankylosing spondylitis, traumatic arthritis, and pyogenic osteomyelitis
6. Patients having associated cardiac disease, pulmonary tuberculosis, diabetes mellitus, malignant hypertension, renal function impairment, etc.
7. Patients with extremely reduced joint space
8. Patients with bone deformity.
9. Pregnant women and lactating mother
10. Patients contraindicated for *Basti* as mentioned in *Samhitas*.

Grouping

A total of 30 clinically diagnosed and registered patients of *Amavata* were divided randomly by lottery method into two groups. Each group had 15 patients.

- Group A: 15 clinically diagnosed patients of *Amavata* were treated with *Alambushadi Ghana Vati* two tablets (each 500 mg) three times in a day with lukewarm water after meal for 30 days.

Group B: 15 clinically diagnosed patients of *Amavata* were treated with *Alambushadi Ghana Vati* two tablets (each 500 mg) three times in a day with lukewarm water after meal for 30 days along with *Vaitarana Basti* which was given on alternate day (15 *Basti*) simultaneously. *Vaitarana Basti* (approximately 200–250 ml), after the meal and *Anuvasana Basti* (approximately 60–80 ml), after the meal (It was given only to the patients who presented with symptoms of *Vata* aggravation. It consisted of *Tila Taila* and one pinch of *Saindhava* mixed well. It was given in the dose of 60–80 ml whenever the patients developed *Vata Vriddhi Lakshana* while receiving *Vaitarana Basti*.

Drugs and method of its preparation

Alambushadi Ghana Vati selected in this trial was taken from *Chakradutta Amavatachikitsa Prakarana*[4] which contains *Alambhusha* (*Lajjalu*) (*Mimosa pudica* Linn.), *Gokshur* (*Tribulus terrestris* Linn.), *Haritaki* (*Terminalia chebula* Retz.), *Bibhitaki* (*Terminalia bellerica* Roxb.), *Amalaki* (*Emblica officinalis* Gaertn.), *Shunthi* (*Zingiber officinale* Roscoe), *Amrita* (*Tinospora cordifolia* (Thunb.) Miers), *Trivrutta* (*Operculina turpethum* Linn.) in the proportion of 1:2:3:4:5:6:7:28. *Alambushadi Ghana Vati* was made of 500 mg each *Vati*. The materials were procured and prepared in GMP certified pharmacy of the institute (Drug Batch No. A0281).

Ingredients of *Vaitarana Basti*

Amalika (Emali) (*Tamarindus indica* Linn.), *Guda, Saindhava, Gomutra,* and *Tila Taila* (*Sesamum indicum* Linn.) in the proportion of 4:2:1:16.

Preparation of Vaitarana Basti

Initially, 20 g (1 *Shukti*) of jaggery (*Guda*) was mixed uniformly with equal quantity of lukewarm water and 10 g (1 *Karsha*) of *Saindhava* was added. Thereafter, *Tila Taila* was added till the mixture become homogenous (approximately 30 ml). To this 40 g (1 *Pala*) of *Emali Kalka* was added carefully and then finally, 160 ml (1 *Kudava)* of *Gomutra* was added slowly and mixing untill uniform *Basti Dravya* was obtained. That was then filtered and *Basti Dravya* was made lukewarm by keeping it into hot water. *Basti* was given by proper method in the left lateral position by *Basti Yantra*, after meals in morning hours.

Criteria for assessment

Subjective parameters

Assessment of sign and symptoms was done pre- and post-trial on severity grading scale for various aspects of disease as developed by Prof. Ram Kishor Joshi *et al*. [Tables 1-14].

Investigations

For the assessment of effect of therapy and to rule out side effect if any, following investigation were done:

a. Hematological- Hb gm%, total leukocytes count (TLC), differential leukocyte count (DLC), erythrocyte sedimentation rate (ESR), serum. uric acid, fasting blood sugar level (FBS), RA factor, C-reactive protein (CRP) test, antistreptolysin O (ASLO) titer
b. Urine routine/microscopic
c. Radiological X-ray of affected joints.

Table 1: Severity grading scale

Severity	Grading	Percentage
Absent	0	0
Mild	1	1-25
Moderate	2	26-50
Severe	3	51-75
Agonising	4	76-100

Table 2: Grading of stiffness present in the joint

Symptoms	Grading
No stiffness	0
<15 min	1
<30 min	2
<1 h	3
>1 h	4

Table 3: Grading of swelling present in the joint

Symptoms	Grading
No swelling	0
Feeling of swelling	1
Feeling of swelling + heaviness	2
Apparent swelling	3
Huge (synovial effusion) swelling	4

Table 4: Grading of movement

Symptoms	Grading
Free movement of joint	0
Mild restriction of movement	1
Moderate restriction of movement	2
Severe restriction of movement	3
Unable to do movement of joint	4

Table 5: Grading of tenderness present in the joint

Symptoms	Grading
No tenderness	0
Tenderness without physical response	1
Patient winces	2
Winces and withdraws	3
Not allowed to be touched	4

Table 6: Grading of body ache (*Angamarda*)

Symptoms	Grading
No body ache	0
Generalized body ache of and on during the day	1
Generalized body ache during most part of the day but not affecting any work	2
Generalized body ache throughout the day, but person is able to do normal routine	3
Generalized (*Sarvanga*) body ache/pain enough to affect routine work for all the day	4

In this study, serum uric acid was done to exclude Gout which mimic the RA symptoms and random blood sugar level (RBS) was used for screening patients of diabetes.

Observation

Present study had shown that 50% patients belong to the 3rd to 5th decade of life and were formal. Incidence of disease is notably higher in females (73.33%) than in males (26.67%), i.e., (2.7:1) Majority of the patients (76.67%) belonged to Hindu religion; 80% patients were married. Out of which, maximum 50% patients were housewives, followed by 26.67% laborers; about 50% patients belonged to middle class. 46.67% patients were of *Vata-Kaphaja Prakriti,* 56.67% patients were of *Madhyama Sara*, 43.33% had *Madhyama Samhanana*, 56% patients with *Madhyama Satmya*, 64% patients with *Madhyama Satva*, 53.33% patients showed *Madhyama Ahara Shakti,* 53.33% patients showed *Avara Vyayamashakti,* 50% patients had *Madhyama Koshtha*, whereas 40% patients had *Krura Koshtha* and maximum 60% patients had *Mandagni.* In this type of *Koshtha* and *Agni*, there is predominance of *Vata* and *Kapha Dosha*, which may play important role in developing the pathogenesis of *Amavata.*

Maximum 40% of the patients had duration of illness for less then <2 years; 46.67% patients were of taking allopathic medicine; 43.33% patients had positive family history of the disease; maximum 80% patients had CRP; 20% patients had ASLO titer and 16.67% patients had RA factor positive before the treatment; 100% patients had pain, stiffness, swelling of the affected joints. *Angamarda* and *Jwara* while; 96.99% patients had tenderness of joint. The 86.66% patients had restriction of movement and 80% of the patients had *Alasya*; 76.66% had *Gaurava*; and 60% patients had *Trishana* before the treatment. Maximum 93.33% of the patients had proximal interphalengeal (hand) joint involvement, 90% metacarpophalengeal and 86.66% had distal interphalengeal (hand) joint involvement other joints affected were wrist joint (83.33%), elbow joint (73.33%), shoulder joint (53.33%), ankle joint (60%), knee joint involvement (43%), metatarsophalengeal (73.33%) and tempomandibular joint 16%.

Results

Effect of therapy on subjective parameters

In Group A, highly significant (HS) results ($P < 0.0001$) in subjective parameters– like pain in joint (68.35%), stiffness of joint (56.26%), swelling of joint (66.97%), restriction of movement (45.45%), tenderness at joint (59.99%), *Angamarda* (57.59%), *Aruchi* (*60.88%), Gaurava* (44.44%), *Jwara* (66.69%), *Apaka* (59.99%) and *Bahumootrata* 59.98% was found. In case of other subjective parameters, i.e., *Alasya*, there was significant result ($P < 0.05$) with percentage relief of 44.44% and *Trishna* there were nonsignificant results ($P > 0.05$) with percentage relief of 19.99%. In Group B, highly significant improvement results ($P < 0.0001$) in all subjective parameters with percentage improvement of pain

Table 7: *Aruchi* (anorexia)

Symptoms	Grading
Willing toward all *Bhojya Padarth*	0
Unwilling toward some specific *Ahara* but less than normal	1
Unwilling toward some specific rasa, i.e., *Katu/Amala/Madhura* food	2
Unwilling for food but could take the meal	3
Totally unwilling for meal	4

Table 8: Grading of *Trishana* (excessive thirst)

Symptoms	Grading
Feeling of thirst (7-9 times/24 h) and relieved by drinking water	0
Feeling of moderate thirst (>9-11 times/24 h) and relieved by drinking water	1
Feeling of excess thirst (>11-13 times/24 h) not relieved by drinking water	2
Feeling of severe thirst (>13 times) not relieved by drinking water	3

Table 9: *Alasya* (laziness)

Symptoms	Grading
No *Alasya* (doing satisfactory work with proper vigor and in time)	0
Doing satisfactory work/late initiation, likes to stand instead of walking	1
Doing unsatisfactory work/late initiation, likes to sit instead of standing	2
Doing little work very slow, likes to lie down instead of sitting	3
Don't want to do work/no initiation, likes to sleep instead of lying down	4

Table 10: *Gaurava* (heaviness)

Symptoms	Grading
No feeling of heaviness	0
Occasional feeling of heaviness	1
Continuous feeling of heaviness, but patient does usual work	2
Continuous feeling of heaviness which hampers usual work	3
Unable to do any work due to heaviness	4

in joint (77.927%), stiffness of joint (66.67%), swelling of joint (73.11%), restriction of movement (81.80%), tenderness at joint (76.92%), *Angamarda* (81.80%), *Aruchi* (80%), *Trishna* (57.88%), *Alasya* (79.96%), *Gaurava* (74.06%), *Jwara* (78.57%), *Apaka* (81.50%) and *Bahumootrata* 80% was reported [Table 15].

Intergroup comparison of Group A and Group B for subjective parameters

Intergroup comparison showed that there was no major difference in efficacy of trial drug of Groups A and B. However, *Angmarda* (– $P < 0.05$) which there was statistically significant difference that there is statistical

Table 11: *Jwara* (fever)

Symptoms	Grading
No fever	0
Occasional fever subsides by itself	1
Daily once subsides by itself	2
Daily once subsides by drug	3
Continuous fever	4

Table 12: *Apaka* (indigestion of food)

Symptoms	Grading
No *Apaka*/indigestion	0
Indigestion/prolongation of food digestion period occasionally related to heavy meal	1
Avipaka occurs daily after each meal takes four to 6 h for *Udagara Shuddhi Lakshana*	2
Eat only once in a day and does not have hungry by evening	3
Never gets hungry always feeling heaviness in abdomen	4

Table 13: *Bahumootrata* (frequency of urine micturition per 2 h)

Symptoms	Grading
<4 times/24 h	1
4-6 times/24 h	2
6-l0 times/24 h	3
>10 times/24 h	4

Table 14: Grading of developed for assessment of in clinical manifestation

Observation	Grading
No relief	0
Mild relief	1
Moderate relief	2
Significant relief	3
Excellent relief	4

showed that Group A provided better result than Group B [Table 16].

Effect of therapy in objective parameters (laboratory investigations)

In Group A – statistical significant increase Hb% and ESR ($P < 0.05$) with change of 3.37% and 35.12%, reduction was reported respectively. While other parameter no significant chages were found. However, it remained within normal range.

In Group B, statically highly significant reduction in ESR was found similarly, significant reduction in TLC (13.14%) was also found [Table 17-18].

Qualitative analysis of RA factor and CRP was done, and on applying statistical analysis, no significant result was found.

Table 15: Effect of therapy in subjective parameters

Variable	Group	Mean		Mean different	Percentage relief	SD±	SE±	*P*	Significance level
		BT	AT						
Pain in joint	Group A	5.26	1.66	3.6	68.35	0.7368	0.1902	<0.0001	HS
	Group B	5.13	1.13	4.0	77.927	0.5345	0.1380	<0.0001	HS
Stiffness of joint	Group A	2.13	0.93	1.2	56.26	0.5606	0.1447	<0.001	HS
	Group B	2.40	0.80	1.6	66.67	0.5071	0.1309	<0.0001	HS
Swelling of joint	Group A	1.66	0.53	1.13	67.97	0.7432	0.1919	<0.001	HS
	Group B	1.73	0.46	1.27	73.11	0.4577	0.1182	<0.0001	HS
Restriction of movement	Group A	1.46	0.80	0.66	45.45	0.4880	0.1260	<0.01	HS
	Group B	1.46	0.26	1.2	81.80	0.6761	0.1746	<0.001	HS
Tenderness at joint	Group A	1.66	0.66	1.00	59.99	0.5345	0.1380	<0.001	HS
	Group B	1.73	0.40	1.33	76.92	0.4880	0.1260	<0.0001	HS
Angmarda (body ache)	Group A	2.20	0.93	1.27	57.59	0.7988	0.2063	<0.001	HS
	Group B	2.46	0.26	2.20	89.18	0.4140	0.1069	<0.0001	HS
Aruchi (loss of appetite)	Group A	1.53	0.60	0.93	60.88	0.5936	0.1533	<0.001	HS
	Group B	2.00	0.40	1.6	80	0.5071	0.1309	<0.0001	HS
Trishna (excessive thirst)	Group A	0.66	0.53	0.13	19.99	0.7432	0.1919	>0.05	NS
	Group B	1.26	0.53	0.73	57.88	0.5936	0.1533	<0.01	HS
Alasya (laziness/absence of enthusiasm)	Group A	1.20	0.66	0.54	44.44	0.6399	0.1652	<0.05	S
	Group B	1.66	0.33	1.33	79.96	0.8165	0.2108	<0.001	HS
Gaurava (heaviness of body)	Group A	1.20	0.66	0.54	44.44	0.6399	0.1652	<0.05	S
	Group B	1.80	0.46	1.34	74.06	0.8165	0.2108	<0.001	HS
Jwara (fever)	Group A	1.60	0.53	1.07	66.69	0.4577	0.1182	<0.001	HS
	Group B	1.86	0.40	1.467	78.57	0.6399	0.1652	<0.0001	HS
Apaka (indigestion of food)	Group A	1.66	0.66	1.00	59.99	0.5345	0.1380	<0.001	HS
	Group B	1.80	0.33	1.47	81.50	0.5164	0.1333	<0.0001	HS
Bahumootrata (polyuria)	Group A	1.66	0.66	1.00	59.98	0.6547	0.1690	<0.001	HS
	Group B	2.00	0.40	1.60	80.00	0.9856	0.2545	<0.001	HS

BT: Before treatment, AT: After treatment, SD: Standard deviation, SE: Standard error, HS: Highly significant, S: Significant, NS: Not significant

Overall effect of therapy

In Group A, excellent relief was found in 6.66% of patients, while significant relief in 46.66%, moderate relief in 33.33%, whereas mild relief in 13.33% of the patients, while in Group B – excellent relief was found in 20% of patients, while significant relief in 60%, moderate relief in 13.33%, whereas mild relief in 6.66% of the patients [Table 19].

Discussion

Ingredients of *Alambushadi Ghana Vati* are *Alambhusha* (*Lajjalu*), *Gokshur, Haritaki, Bibhitaki, Amalaki, Shunthi, Amrita, Trivrutta* in the proportion of 1:2:3:4:5:6:7:28, i.e., having highest concentration of *Trivrutta* with their *Kapha Vata Shamaka* and *Virechana* properties thus[5] help in reducing the swelling in the joints.

Also, *Katu, Tikta Rasa* is dominant in this formulation, thus help in digestion of *Ama* and finally in breakage of pathogenesis of disease. Besides this, there is dominancy of *Laghu, Ruksha Gunas* in the *Alambushadi Ghana Vati* which also helps in *Kaphaghna* property. Five *Dravyas* out of eight in the formulation possesses *Laghu* and *Ruksha Guna*. This formulation also dominance of drugs *Ushna Virya* which also helps to pacify the *Vata Dosha*. In addition of six *Dravyas* with *Shothahara* and *Anulomana* property are also present. With these overall effect of these properties of the drugs of *Alambushadi Ghana Vati, Ama* and *Vata Dosha* is treated and thus relief in the cardinal symptoms of the disease was found.

Guduchi is also proved to have antirheumatic, anti-inflammatory, and immunomodulatory properties.[6] While, *Sunthi* is also proved beneficial for rheumatic and musculoskelatal disorders.[7] *Triphala* has *Rasayana, Tridoshahara,* and *Virechana* properties[8] which helps in reducing the swelling in the joints. *Gokshura* with its diuretic properties helps to reduce swelling in the joints.[9]

Probable mode of action of *Vaitarana Basti*

Vaitarana Basti has been mentioned by *Chakradutta in Niruhadhikar* 73/32. Ingredients of *Vaitarana Basti* are *Amalika (Emali), Guda, Saindhava, Gomutra* and *Tila taila* in the proportion of 4:2:1:16. As a whole, the qualities of *Vaitarana Basti* can be considered as *Laghu, Ruksha, Ushna, Tikshna.* Majority of the drugs have *Vata Kapha Shamaka* action. Owing to these properties treatment with the *Basti* has provided significant improvement in sign and symptom of disease. The *Tikshna Guna* of *Basti* helps in overcoming the *Srotodushti* resulting due to *Sanga*, thus help in breaking down the pathogenesis of disease.

Table 16: Intergroup comparison of Group A and Group B for subjective parameters

Variable	Groups	AT	SD±	SE±	*P*	Significance level
Pain in joint	Group A	1.66	0.8997	0.2323	>0.05	NS
	Group B	1.13	0.8338	0.2153		
Stiffness of joint	Group A	0.93	0.7988	0.2063	>0.05	NS
	Group B	0.80	0.5606	0.1447		
Swelling of joint	Group A	0.53	0.6399	0.1652	>0.05	NS
	Group B	0.46	0.6399	0.1652		
Restriction of movement	Group A	0.80	0.8619	0.2225	>0.05	NS
	Group B	0.26	0.4577	0.1182		
Tenderness at joint	Group A	0.66	0.8165	0.2108	>0.05	NS
	Group B	0.40	0.5071	0.1309		
Angmarda (body ache)	Group A	0.93	0.8837	0.2282	<0.05	S
	Group B	0.26	0.4577	0.1182		
Aruchi (loss of appetite)	Group A	0.60	0.7368	0.1902	>0.05	NS
	Group B	0.40	0.5071	0.1309		
Trishna (excessive thirst)	Group A	0.53	0.7432	0.1919	>0.05	NS
	Group B	0.53	0.7432	0.1919		
Alasya (laziness/absence of enthusiasm)	Group A	0.66	0.8165	0.2108	>0.05	NS
	Group B	0.33	0.6172	0.1594		
Gaurava (heaviness of body)	Group A	0.66	0.8165	0.2108	>0.05	NS
	Group B	0.46	0.6399	0.1652		
Jwara (fever)	Group A	0.53	0.7432	0.1919	>0.05	NS
	Group B	0.40	0.5071	0.1309		
Apaka (indigestion of food)	Group A	0.66	0.6172	0.1594	>0.05	NS
	Group B	0.33	0.4880	0.1260		
Bahumootrata (polyuria)	Group A	0.66	0.6172	0.1594	>0.05	NS
	Group B	0.40	0.5071	0.1309		

AT: After treatment, SD: Standard deviation, SE: Standard error, S: Significant, NS: Nonsignificant

Table 17: Effect of therapy on haematological parameters

Variable	Group	Mean		Mean different	Percentage relief	SD±	SE±	*t*	*P*	Significance level
		BT	AT							
Hb% (g%)	Group A	11.84	12.24	0.40	3.376	0.6803	0.1757	2.277	<0.05	S
	Group B	11.90	12.20	0.30	3.492	0.8681	0.2241	1.309	>0.05	NS
TLC (/mcl)	Group A	7466	7240	226	3.03	1649	425.77	0.532	>0.05	NS
	Group B	8400	7273	1126	13.41	1931.5	498.71	2.259	<0.05	S
ESR (mm/h)	Group A	49.73	32.26	17.47	35.12	24.354	6.288	2.778	<0.05	S
	Group B	45.20	25.66	19.54	43.21	12.575	3.247	6.016	<0.0001	HS

Hb: Hemoglobin, TLC: Total leucocytes count, ESR: Erythrocyte sedimentation rate, BT: Before treatment, AT: After treatment, SD: Standard deviation, SE: Standard error, HS: Highly significant, S: Significant, NS: Nonsignificant

Table 18: Inter group comparison on haematological parameters

Variable	Groups	(AT) Mean	SD±	SE±	*t*	*P*	S
Hb%	A	12.24	1.324	0.3420	0.08535	>0.05	NS
	B	12.20	1.652	0.4266			
TLC (per mcl)	A	7240	1463.8	377.94	0.06691	>0.05	NS
	B	7273.3	1257.2	324.64			
ESR (mm/hr)	A	32.26	24.280	6.269	0.8191	>0.05	NS
	B	25.66	19.606	5.062			

Basti therapy may be stimulator for many intraluminal, luminal, and whole body functions. *Basti Karma* exerts a more systemic action besides exerting local action of operating through large intestine involving enteric nervous system. Enteric nervous system is a collection of neurons in the gastrointestinal tract (GIT) constituting the brain of gut. Apart from its influence on GIT, enteric nervous system also influences the autonomic nervous system thereby producing systemic affect.[10]

Vata is very important *Dosha* to be managed during treatment of any disease as *Acharya* told that other *Doshas* are handicapped without *Vata Dosha*, and *Basti* is very important therapy to manage *Vata Dosha,* and is called as *Ardha Chikitsa*.[11]

As a whole, the effect of *Basti* can be summarized as encolonic (action on tissue of colon), endcolonic (action inside colon), and diacolonic (for systemic action). Thus, *Basti Dravya*

Table 19: Overall effect of therapy of the Group A and Group B

Effects	Number of patients (%)	
	Group A	Group B
No relief (unchanged)	0	0
Mild relief	2 (13.33)	1 (6.66)
Moderate relief	5 (33.33)	2 (13.33)
Significant relief	7 (46.66)	9 (60)
Excellent relief	1 (6.66)	3 (20)

after reaching to large and small intestine get absorbed from intestine and due to *Laghu, Ushna, Tikshna,* and *Ruksha Guna* of *Vaitarana Basti Dravya,* it breaks the obstructions and expels out the morbid material from all over the body, thus help in breaking down the pathogenesis of disease.

General observation made during the trial

1. During the trial, it was observed that in *Vata Pittaja Prakriti* patients, there was less holding capacity of the *Basti Dravya*. In these patients, the dose of *Gomutra* was lowered along with overall *Basti* quantity to seek the expected results
2. As *Ayurveda* is individualized science (*Ch. Su*. 1/24), every individual has different sensitivity for different contents of formulation, hence cases abdominal discomfort was reported in few cases which was managed by reduction in total quantity of the *Basti*
3. Just after *Samyaka Basti Nirharana,* patient felt very light and enthusiastic.

Conclusion

Finally, comparing the effect of two therapies, it can be concluded that (*Alambushadi Ghana Vati* along with *Vaitarana Basti*) provided better relief than (*Alambushadi Ghana Vati* alone) in most of the signs and symptoms of the disease at significant level.

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Conflicts of interest

There are no conflicts of interest.

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हिन्दी सारांश

आमवात (रुमाटाईड आथ्रराइटिस) के प्रबंधन में अलम्बुषादि घनवटी और वैतरण बस्ति के प्रभाव का नैदानिक मूल्यांकन

सासने प्रशांत उत्तम, सरोज उदय राज, राम किशोर जोशी

आमवात की नैदानिक प्रस्तुति, आधुनिक चिकित्सा में वर्णित रूमाटाईड आथ्रराइटिस रोग के समान है। इस रोग का आयुर्वेद दृष्टि से प्रबंधन समय की अवश्यकता है क्योंकि कोई भी चिकित्सा शास्त्र इसकी सम्पूर्ण रोकथाम करने में समर्थ नहीं है। आमवात चिकित्सा के दृष्टि से चुनौतीपूर्ण एवं ज्वलंत समस्या है। जनसंख्या में इसका प्रसार लगभग 0.8% है। इस रोग की व्यापकता, समाज में ज्यादा प्रसार और प्रभावी दवा की कमी के कारण, प्रस्तुत अध्ययन के लिए चुना है। प्रस्तुत शोध में आमवात (रूमाटाईड आथ्रराइटिस) के प्रबंधन में अलम्बुषादि घनवटी और वैतरण बस्ति के प्रभाव का आंकलन करने के लिए अध्ययन है जिसके लिए आमवात के ३० रोगियों का चयन किया गया तथा लाटरी पद्धति द्वारा दो समूहों में विभाजित किया गया। अलम्बुषादि घनवटी को २ गोली (प्रत्येक ५०० मिग्रा.) दिन में तीन बार गुनगुने पानी के साथ भोजन के बाद ३० दिनों के लिए दिया गया और वैतरण बस्ति एकान्तर दिन क्रम से (१५ बस्ति) उपर्युक्त चिकित्सा के साथ दी गई थी। सांख्यिकीय विश्लेषण के लिए इन स्टैट ग्राफ पैड 3 सॉफ्टवेयर इस्तेमाल किया गया। नान पैरामीट्रिक डेटा का विश्लेषण विल्कोक्शन समूह मिलान लक्षण श्रेणी टेस्ट द्वारा तथा पैरामीट्रिक डेटा समूह 't' परीक्षण द्वारा किया गया और इंटर ग्रुप की तुलना, के लिए Mann Whitney और अयुग्म 't' परीक्षण का इस्तेमाल किया गया। परिणामस्वरूप सांख्यिकीय विश्लेषण के आधार पर यह ज्ञात हुआ की जब वैतरण बस्ति तथा अलम्बुषादि घनवटी के प्रयोग करने के बाद ई. एस. आर. (ESR) में सांख्यिकीय दृष्टि से अत्यधिक महत्वपूर्ण सुधार पाया गया और आमवात के लक्षणों में अत्यधिक महत्वपूर्ण परिणाम पाये गये। जिनमें २०% रोगियों में उत्कृष्ट राहत देखी गई, ६०% रोगियों को योग्य राहत, १३.३३% रोगियों में मध्यम राहत और ६.६६% रोगियों को अल्प राहत मिली। इस प्रकार इससे यह निष्कर्ष निकलता है कि आमवात (रूमाटाईड आथ्रराइटिस) के चिकित्सा प्रबंधन में अलम्बुषादि घनवटी और वैतरण बस्ति का प्रयोग लाभकारी है।