

CLINICAL EFFICACY OF ALAMBUSHADI CHURNA IN THE MANAGEMENT OF AMAVATA

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ABSTRACT

Introduction: The symptoms of *amavata* are identical to rheumatism which includes rheumatoid arthritis. The *ama* and vitiated *vata* combines and circulate into body and occupies *shleshma sthana* results painful disease *amavata*^[1] producing symptoms such as stiffness, swelling and tenderness in the small and large joints, making a person lame. **Material & Methods:** A non-randomized, single-armed, open-labeled clinical trial was conducted in fifteen patients having classical symptoms of *amavata*, administered with 5 mg of *alambushadi churna* twice a day before meal for 60 days. The

assessment was done based on subjective parameters i.e., *sandhishula* (pain in joints), *sandhishotha* (swelling in joints), *apaka* (indigestion) etc. The results were statistically analyzed using the paired t-test. **Results:** Statistically highly significant relief ($P < 0.001$) was noted in *sandhishula*, *sandhishotha*, *apaka* etc. **Conclusion:** *Alambushadi churna* can be considered as an effective formulation in the management of *amavata*.

KEYWORDS: Amavata, Ama, Alambushadi churna.

INTRODUCTION

The changing life style of human being by means dietetic and behavior pattern plays a major role in the manifestation of several disorders. Due to improper food habits, sedentary life style and mental stress *agni* gets vitiated. When *agni* gets vitiated it becomes incapable of digesting the food and this undigested food turns into poisonous substance called *ama*.^[2] *Vata* gets vitiated on account of changing life style like dry, cold food, excessive exercise, and night awakening etc.^[3] The spectrum of disease that results due to *ama* ranges from acute conditions like *visuchika*, *alasaka*, *vilambika* etc. up to the chronic disorders like *amavata*,

grahani and *amatisara* etc. The *ama* and vitiated *vata* combines and circulate into body and occupies *shleshma sthana* results painful disease *amavata*^[4] producing symptoms such as stiffness, swelling and tenderness in the small and large joints, making a person lame.

The symptoms of *amavata* are identical to rheumatism which includes rheumatoid arthritis. It is observed that rheumatism is an autoimmune disorder which is among the collagen disorders having strong and significant parlance with *amavata*.

The disease rheumatoid arthritis is chronic in nature and affects mostly the middle aged group. It is one of the common debilitating diseases by the virtue of its chronic nature and implication. The onset of disease is frequent during 4th and 5th decades of life with 80% of patients developing the disease between 35 to 50 years of age. Community prevalence study shows that females are more sufferer than male and the ratio of occurrence between them is 3:1. It is noted that frequency is often associated with remission of the disease in last trimester with subsequent relapse after delivery.^[5]

In *amavata*, *vata* as a *dosha* and *ama* are chief pathogenic factors. They are contradictory in nature and thus possess difficulty in planning the line of treatment. It is mostly the disease of *madhyama rogamarga* and having *chirakari svabhava*, sometime it can also be seen as the acute case.

Clinical features

a) *Sandhishula*

The most characteristic feature is severe pain like a scorpion bite.^[6]

Continuous and severe pain in the affected joint, at times disturbing the sleep is the cardinal symptom of *amavata* due to *asthi* and *majja dushti* by *vatadosha*.^[7]

Initially pain may be experienced only on movement of joints but pain at rest is characteristic feature of active rheumatoid arthritis. In the typical case the small joints of the fingers and toes are the first to be affected.

b) *Gatrastabdhatata*

Such stiffness is caused by the affliction of *sandhi* in *amavata*.^[8]

c) Sparshasahyata

In *ayurvediya* texts, *sparshasahyata* is not mentioned as a *lakshana* of *amavata* separately, but the term *sandhishula* may include the tenderness which is a very important sign of *amavata*. *Sandhishula* includes both subjective pain and objective tenderness. According to modern texts, pain on movement and tenderness to pressure are the cardinal signs of the disease.

d) Sandhi shotha

Sandhishotha is the result of *srotorodha* in the joint itself because of the accumulation of *ama* and *tridosha*.^[9]

e) Sashabda sandhi

This *lakshana* is mentioned in *yoga ratnakara* which refers to the joint crepitus produced during the joint movement. This is indicative of the affliction of the *sandhi* by the vitiated *vata dosha*.

f) Angamarda: when function of *deha* is improper presence of *ama* leads to feeling of body ache that is called *angamarda*.

g) Trishna: *trishna* is the result of vitiated *pitta* and *ama*. In *ama prabhava trishna*, patient feels thirst in febrile condition.

h) Alasya: inspite of capability a person cannot carry out his normal duties.

i) Gaurava: vitiated *kapha* and *ama* produce feeling of heaviness in body.

j) Jvara: result of *agnimandya* and *rasa dushti*.

k) Apaka: feeling an abdominal heaviness due to *agnimandya*- improper digestion.

l) Angashunata: *vimargagamana* of vitiated *vata*, *pitta*, *kapha* and *rakta* produces edema of the body part except swelling of the joint.

There is two type of treatment of *amavata* namely *shodhana* and *shamana* mentioned in *Chakradutta*.^[10] But now a day, due to lack of time people are not able to avail *shodhana* treatment. So in this situation *shamana* has been prescribed for bring *agni* to normal state, to digest *ama*, to eliminate vitiated *vata* and *ama*.

Hence *Alambushadi churna*^[11] had been chosen for *shamana* therapy.

Alambushadi churna

S. No.	Sanskrit Name	Botanical Name ^[12]	Part Used	Quantity
1.	Alambusha	Sphaeranthus indicus Linn.	Panchanga	1 part
2.	Gokshur	Tribulus terrestris Linn.	Moola	2 part
3.	Haritaki	Terminalia chebula Retz.	Phala	3 part
4.	Bibhitaki	Terminalia bellirica Roxb.	Phala	4 part
5.	Amalaki	Emblica officinalis Gaertn.	Phala	5 part
6.	Shunthi	Zingiber officinale Rosc.	Kanda	6 part
7.	Amrita	Tinospora cordifolia Willd.	Tana	7 part
8.	Trivritta	Operculina turpethum Linn.	Moola	28 part

MATERIALS AND METHODS

The 15 patients having classical symptoms of *amavata* attending the OPD of *Maulik Siddhanta*, National Institute of Ayurveda, Jaipur were selected irrespective of sex, caste, religion etc., taking due considerations of inclusion and exclusion criteria. The study was started after approval from the Institutional Ethics Committee IEC/ ACA/ 2016/ 27 dated 26.05.2016. Informed written consent was taken from each patient before starting the treatment.

15 clinically diagnosed and registered patients of *amavata* were administered *alambushadi churna* in the dose of 5 gm. before meal twice a day with lukewarm water for 2 months.

Inclusion Criteria

1. The patients between the age group of 16-60 years in either sex.
2. Pre-diagnosed patient of *amavata* (Chronicity < 4 years)
3. Patient agreeable to sign the consent forms.

Exclusion Criteria

1. Patients having severe crippling bone deformities.
2. Patients having associated Cardiac disease, Tuberculosis, Diabetes Mellitus, Malignant Hypertension, Renal Function Impairment; Hypothyroidism, RHD etc.
3. Patients with extremely reduced joint space.
4. Pregnant women and lactating mother.

Laboratory Investigations

1. Erythrocyte Sedimentation Rate (ESR)
2. C-Reactive Protein (CRP)
3. Rheumatoid Arthritis Factor (RA factor)

4. Haemoglobin (Hb %)
5. Total Leucocytes Count (TLC)

For exclusion -

6. Serum Uric Acid.
7. Urine examination Routine & Microscopic (R/M)
8. For safety profile-
9. Blood Urea
10. Serum creatinine

Subjective assessment

Below clinical features were recorded according to the rating scales in each patient at the initial stage. The rating scales were as follows:

1. Sandhishula

Sr. No.	Symptoms	Grading
1	No pain	00
2	Mild pain	01
3	Moderate pain	02
4	Sever pain	03
5	Extremely severe pain even rest(<i>Vrishchikdanshvatvedana</i>)	04

2. Sandhistabdhata

Sr.No.	Symptoms	Grading
1	No stiffness	00
2	< 15 min.	01
3	< 30 min.	02
4	< 1 hrs.	03
5	> 1 hrs.	04

3. Sandhishotha

Sr. No.	Symptoms	Grading
1	No swelling	00
2	Felling of swelling	01
3	Felling of swelling + Heaviness	02
4	Apparent swelling	03
5	Huge (Synovial effusion) swelling.	04

4. *Sparshasahyata*

Sr.No.	Symptoms	Grading
1	No tenderness	00
2	Slightly tender	01
3	Patient winces	02
4	Winces and withdraws	03
5	Not allowed to be touched	04

5. *Angamarda (Bodyache)*

Sr.No.	Symptoms	Grading
1	No body ache	00
2	Generalized body ache on and off during the day	01
3	Generalized body ache during most part of the day not affecting any work	02
4	Generalized body ache throughout the day but person is able to do normal routine	03
5	Generalized (<i>sarvanga</i>) body ache/pain enough to affect routine work for all the day	04

6. *Aruchi*

Sr. No.	Symptoms	Grading
1	Willing toward all <i>Bhojya Padarth</i>	00
2	Unwilling toward some specific <i>Ahara</i> but less than normal	01
3	Unwilling toward some specific rasa i.e. <i>Katu/Amala/Madhura</i> food	02
4	Unwilling for food but could take the meal	03
5	Totally unwilling for meal	04

7. *Trishna (Excessive thirst)*

Sr. No.	Symptoms	Grading
1	Feeling of thirst (5 – 7 times/24 hours) & relieved by drinking water	00
2	Feeling of mild thirst (7 – 9 times/24 hours) & relieved by drinking water	01
3	Feeling of moderate thirst (>9 - 11 times/24 hours) & relieved by drinking water.	02
4	Feeling of excess thirst (>11 – 13 times/24 hours) not relieved by drinking water.	03
5	Feeling of sever thirst (>13 times) not relieved by drink water	04

8. *Alasya (Laziness / Absence of enthusiasm).*

Sr. No.	Symptoms	Grading
1	No <i>Alasya</i> (doing satisfactory work with proper vigor & in time)	00
2	Doing satisfactory work/late initiation, like to stand in comparison to walk	01
3	Doing unsatisfactory work/late initiation, like to sit in comparison to stand	02
4	Doing little work very slow, like to lie down in comparison to sit.	03
5	Don't want to do work/no initiation, like to sleep in comparison to lie down	04

9. Gaurava (Heaviness).

Sr. No.	Symptoms	Grading
1	No feeling of heaviness	00
2	Occasional feeling of heaviness	01
3	Continuous feeling of heaviness, but patient does usual work	02
4	Continuous feeling of heaviness which hampers usual work	03
5	Unable to do any work due to heaviness	04

10. Jvara (Fever).

Sr. No.	Symptoms	Grading
1	No fever	00
2	Occasional fever subsides by itself	01
3	Daily once subsides by itself	02
4	Daily once subsides by drug	03
5	Continuous fever	04

11. Apaka (Indigestion of food).

Sr. No.	Symptoms	Grading
1	<i>Apaka</i> /Indigestion	00
2	Indigestion / prolongation of food digestion period occasionally related to heavy meal	01
3	<i>Avipaka</i> occurs daily after each meal, takes four to six hours for <i>paka</i> ...like <i>Udgara shuddhi</i> .	02
4	Eats only once in a day and does not have hungry by evening	03
5	Never gets hungry, always feeling of heaviness in abdomen	04

12. Bahumutrata (frequency of micturition per 24 hours).

Sr. No.	Symptoms	Grading
1	Less than 4 times/24 hrs.	00
2	4 - 6 times/24 hrs.	01
3	6- 8 times/24hrs.	02
4	8 - 10 times/24 hrs.	03
5	>10 times/24 hrs.	04

RESULTS

Showing Effect of *Alambushadi churna* in Subjective Parameters (Wilcoxon matched pairs signed ranks test).

Variable	Mean		Mean Diff.	% Relief	SD±	SE±	P Value	S
	BT	AT						
<i>Sandhishula</i>	2.60	0.60	2	76.9	0.378	0.098	<0.0001	HS
<i>Sandhi- stabdhata</i>	2.93	1.00	1.93	65.9	0.594	0.153	<0.0001	HS
<i>Sandhi-shotha</i>	2.40	0.60	1.80	75.0	0.561	0.145	<0.0001	HS
<i>Sparsha-asahyata</i>	2.40	0.80	1.60	66.7	0.507	0.131	<0.0001	HS
<i>Angamarda</i>	2.47	1.00	1.47	59.5	0.516	0.133	<0.0001	HS
<i>Aruchi</i>	2.27	1.20	1.07	47.1	0.594	0.153	<0.0002	HS

<i>Trishna</i>	1.13	0.47	0.67	58.8	0.617	0.159	<0.0039	S
<i>Alasya</i>	1.33	0.53	0.80	60.0	0.414	0.107	<0.0005	HS
<i>Gaurava</i>	1.80	0.67	1.13	63.0	0.743	0.192	<0.0001	HS
<i>Jvara</i>	2.73	0.87	1.87	68.3	0.743	0.192	<0.0001	HS
<i>Apaka</i>	1.80	0.40	1.40	77.8	0.828	0.214	<0.0001	HS
<i>Bahumutrata</i>	1.60	0.53	1.07	66.7	0.594	0.153	<0.0002	HS

(HS: Highly Significant S: Significant NS: Non Significant)

Showing effect of *Alambushadi churna* on Lab Investigations (Objectives parameters), (Paired 't' Test).

Variable	Mean		Mean Diff.	% Relief	SD±	SE±	T	P	S
	BT	AT							
Hb% (gm %)	12.83	13.13	0.31	2.4	0.322	0.083	0.0888	<0.0024	S
TLC	7540.0	6846.67	693.33	9.2	341.147	88.084	0.2709	<0.0001	HS
ESR	43.80	20.60	23.20	53.0	7.984	2.061	0.0888	<0.0001	HS

(Hb-Haemoglobin; TLC-Total Leucocytes Count; ESR-Erythrocyte Sedimentation Rate)

DISCUSSION

In this combination, *katu*, *tikta* are dominant *rasa* thus help in digestion of *ama* and finally in breakage of pathogenesis of disease. Besides this, there is dominancy of *laghu*, *ruksha guna* in the *alambushadi churna* which also helps in *kaphaghna* property. 5 *dravya* out of 8 in the formulation possess *laghu* and *ruksha guna*. The formulation also dominantly has 5 *dravya* with *ushna veerya* which also helps to pacify the *vata dosha*. 6 *dravya* also have *shothahara* and *anulomana* properties. With these properties *alambushadi churna* is able to digest *ama* and to control the *vata dosha*.

In the first stage of the disease *amotpatti* is there and *alambushadi churna* does *amapachana* as all the pharmacodynamic property of *alambushadi churna* i.e. *laghu-tikshna-ruksha guna*, *katu-tikta rasa*, *ushna veerya* and *katu vipaka*, *vata-kaphahara*, *deepana*, *pachana* and *shothahara* property. Also *virechana* pacifies *kaphavata* ignites hampered *agni (mandagni)* leading to *amapachana* leading to relief of above all symptoms and also against the *guru*, *snigdha*, *pichchila*, *sheeta* properties of *ama*. Later the *yugapata prakopa* of disease is checked by *vata-kaphahara* action of the drug. Further the *ama* formation is stopped by *deepaniya* action. Also the associated symptoms like *vibandha*, *anaha* etc. are reduced by *anulomana* properties of the drug. So it is very suitable for *samprapti vighatana* of the disease and to combat the main culprit *vata* and *kapha (ama)* and *mandagni* which are root cause of *amavata*.

CONCLUSION

Alambushadi churna has provided highly significant results on the parameters of *amavata*. Based on the present clinical study, it can be concluded that *alambushadi churna* is an efficacious formulation for the management of *amavata*. No adverse effects were reported during the entire study period. The present clinical trial was carried out on a limited number of patients. Hence, an extended study with more clinical parameters and on a large number of patients can be considered to find the effect treatment prevention of recurrence.

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