



## A CLINICAL STUDY TO EVALUATE THE EFFICACY OF *TRITIYA ALAMBUSHADI CHURNA* IN MANAGEMENT OF *AMAVATA*

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### ABSTRACT

*Amavata* is a chronic disease. Due to tremendous pain in *Amavata*, patient's daily life get disturbed. Also the morbidity of disease disturbs routine work of the patient. The sign and symptoms of *Amavata* is nearer to resemble with Rheumatoid arthritis in modern science, R.A is more than just arthritis. The prevalence of R.A. is approximately 0.8% of the population (range 0.3 to 2.1%), woman are affected three times more often than man. Family studies indicate a genetic predisposition. Now a days, due to changed life style and improper dietary habits like pattern of spicy food, irregular timing of meals, over eating etc. causes *Agnimandya* and it leads to production of *Ama*.

All these faulty eating habits are almost always accompanied with faulty *Vihara* like improper or over exercise, late night parties, suppression of natural urges, excessive traveling etc. these are causes of vitiation of *Vata*. This vitiated *Vata* carries *Ama* to the all over the body especially the *Kapha sthanas* and produces symptoms like *Sandhi shotha*, *Sandhi shula*, *Stabdhatta*<sup>1</sup> (stiffness) and other systemic sign and symptoms. This dreadful disease is called as *Amavata*.

*Tritiya Alambushadi Churn* provided highly significant relief in pain (73.41%), joint score (59.26%), tenderness (73.91%), stiffness (76.22%), swelling of joints (78.53%), local temperature (77.61%) and improvement in grip strength (73.61%), functional activity (79.66%). i.e. overall total improvement is 73.63%. On the basis of these observations, administration of *Tritiya Alambushadi Churna* is effective for the management of *Amavata*.

**KEYWORDS:** *Amavata*, Joint disorder, Rheumatoid Arthritis, *Tritiya Alambushadi Churna*.

### INTRODUCTION

*Amavata* is a chronic disease<sup>1</sup>. Due to tremendous pain in *Amavata* patient's daily life get disturbed. Also the morbidity of disease disturbs routine work of the patient. For better quality of life patient requires proper treatment of *Amavata*. In textbook of orthopaedic 3<sup>rd</sup> edition (John Ebnezar) stated that, no treatment is Ideal for Rheumatoid Arthritis. But in Ayurvedic books mentioned many useful remedies for *Amavata*. So this topic was selected to conduct clinical trials of *Tritiya Alambushadi churna* in management of *Amavata*. Today millions of adult in the world suffer from *Amavata*. The prevalence of R.A. is approximately 0.8% of the population (range 0.3 to 2.1%), woman are affected three times more often than men. Family studies indicate a genetic predisposition.

Rheumatism word was coined by 'Galen' (199 A.D). W.H.O has also referred the word arthritis to indicate the joint disorder. The term Rheumatoid arthritis was first used by Sir Archibald Garrod in 1876 to describe a chronic non suppurative inflammatory arthropathy distinct from Gaut & Osteoarthritis. In Ayurveda the various patterns has been adopted regarding the nomenclature of the disease. Things often taken into consideration for naming the disease by vitiated *Doshas*, involved *Dushyas*, *Adhishthan*, *Vedana*, *Gati*, *Marg* etc. *Amavata* has been

named keeping view to predominant pathological factors i.e. *Ama* & *Vata*.

Now a days, due to changed life style and improper dietary habits like pattern of spicy food, irregular timing of meals, over eating etc. causes *Agnimandya*<sup>5</sup> and it leads to production of *Ama*.

All these faulty eating habits are almost always accompanied with faulty *vihara*<sup>6</sup> like improper or over exercise, late night parties, suppression of natural urges, excessive travelling etc. these are causes of vitiation of *Vata*. This vitiated *Vata* carries *Ama* to the all over body especially the *Kapha sthanas* and produces symptoms like *Sandhi shotha*, *Sandhi shula*, *Stabdhatta* (stiffness) and other systemic sign and symptoms. This dreadful disease is called as *Amavata*<sup>1</sup>.

The sign and symptoms of *Amavata* is nearer to resemble with Rheumatoid arthritis in modern science, R.A is more than just arthritis. Many doctors call it rheumatism to emphasize the widespread nature of this process. The term 'RHEUM' refers to the stiffness, Body aching, and fatigue, so although it usually present with arthritis it is a systemic disease, with a wide variety of extra articular manifestation.

**AIMS & OBJECTIVES**

**Aim:** To evaluate the efficacy of *Tritiya Alambushadi Churna*<sup>2</sup> in the management of *Amavata* w.s.r. to Rheumatoid Arthritis clinically.

**Objectives**

1. To illustrate mode of action of drug (*Tritiya Alambushadi Churna*) in *Aamavata*.
2. To study the efficacy of *Tritiya Alambushadi Churna* in *Aamavata* w.s.r. to RA.
3. To study present results by appropriate statistical methods.

**MATERIALS & METHODS**

**Plan of work:** The proposed study was done in two levels.

**Level 1:** Generation of data on Standardization i.e. Standardisation of ingredients of *Tritiya Alambushadi Churna*.

**Level 2:** Clinical trials.

**Clinical Study****Study Design:**

This was three months open, randomized, clinical study with control.

**Selection of Patients**

60 patients of *Amavata* will be randomly selected into two groups. i.e. Study group, & control group. Trial drug will be given to study group & placebo (no medicated inert material) will be given to control group. Each group consist of 30 pts. Single blind trial will be taken.

Patients were selected irrespective of age, sex, religion, occupation, *Prakriti* etc. All the patients were examined by *Trividha*, *Ashtavidha*, *Dashavidha Pariksha*. They were treated with *Tritiya Alambushadi Churna*. Follow up was taken after every 15 days. The assessment criteria were assessed very carefully and noted down before and after the treatment.

**Inclusion Criteria**

Textual criteria from the text *Madhav Nidan* was taken as reference.

- Swelling accompanied by pain over joints of upper & lower limbs & *Trika* region.
- Scorpion bite like pain
- Shifting pain
- Stiffness of joints, Morning stiffness
- Other associated symptoms like *Angamarda*, *Aruchi*, *Alasya*, *Jwara*, *Apaka*, Swelling over the body.

**Exclusion Criteria**

- Diseases like *Vatarakta*, *Sandhigatavata*.
- Rheumatic Fever.
- Any other major illness, *Amavata upadravas*.

**Trial Drug**

*Tritiya Alambushadi Churna*<sup>2</sup> was prepared as per the guidelines mentioned in *Sharangdhara Samhita*. Authentication was done from the Botany Department, Pune University. Standardisation of *Churna* was done from Late Principal B.V. Bhide Foundation, Pune.

*Churna* Preparation- Made fine powder of all dry drugs in equal quantity and mixed well.

Route of administration - Oral

Dose - 3 gm

Time - After lunch and Dinner

Duration - 3 months

*Anupana* - Lukewarm Water

Follow up - After every 15 days.

*Pathyapathya* were advised as per disease

Regular observations before, during and after treatment were noted.

**Criteria for Assessment**

A] Clinical assessment was done according to relief of Symptoms & self-assessment, on the basis of gradation & improvement in the classes.

**Joint Score:**

Score 3	:	If more than 5 joints.
Score 2	:	joints between 3-5.
Score 1	:	at least 3 joints.
Score 0	:	less than 3 joints.

The number of clinically active joints was determined on the basis of tenderness on pressure or painful passive movements.

**Duration of morning stiffness:**

Score 3	:	above 60 min.
Score 2	:	for 30-60 min.
Score 1	:	for 0-30 min.
Score 0	:	no stiffness

**Severity of Pain :( by VAS)**

Score 3	:	If severe
Score 2	:	If moderate
Score 1	:	If mild
Score 0	:	If nil

VAS- Visual Analogue Scale -

There is a 10 cm horizontal line for pain assessment. Each centimeter indicate digit from 0 to 10. 0 indicates no pain. 1 to 4 indicates mild pain (Mild pain of bearable nature, comes occasionally). 5 to 9 indicates moderate pain (difficulty in movement of joint, appears frequently and requires some *Upashaya* measures for relief). 10 indicate severe pain (More difficulty in moving the joints, pain is severe disturbing the sleep and requires strong analgesics.).

**Tenderness:**

Score 3	:	If severe
Score 2	:	If moderate
Score 1	:	If mild
Score 0	:	If nil

Composite Tenderness Score- 0 score indicates no tenderness. Subjective experience of pain indicates mild tenderness. Wincing of face on pressure indicates Moderate tenderness. Pain, wincing and withdrawal indicates severe tenderness.

**Swelling:**

Score 3	:	Severely present
Score 2	:	Markedly present
Score 1	:	Slightly present



**Table 6 : Diet wise distribution of 60 patients of Amavata**

Diet	Group A	Group B	Total	Percent
Veg	14	15	29	49%
Mix	16	15	31	51%

**Table 7: Deha Prakriti wise distribution of 60 patients of Amavata**

Prakriti	Group A	Group B	Total	Percent
Vata-Pitta	10	09	19	32%
Vata-Kapha	05	06	11	18%
Pitta-Vata	02	04	06	10%
Pitta-Kapha	04	03	07	12%
Kapha-Vata	04	04	08	13%
Kapha- Pitta	05	04	09	15%

**Table 8: Hetu wise distribution of 60 patients of Amavata**

Hetu	Group A	Group B	Total	Percent
Virrudh Ahara	16	16	32	53%
Mandagni	12	12	24	40%
Viruddha cheshta	01	01	02	3.5%
Snigdhanana	01	01	02	3.5%

**Table 9: Agni wise distribution of 60 patients of Amavata**

Agni	Group A	Group B	Total	Percent
Mandagni	11	12	23	38%
Vishamagni	10	10	20	33%
Tikshanagni	07	06	13	22%
Samagni	02	02	04	7%

**RESULT**

The effect of *Tiritiya Alambushadi churna* on Group A and placebo on Group B was assessed on basis of criteria designed for assessment. The observations were recorded in case record form on day 0 and every month. The results were drawn with paired and unpaired t test. The data generated during the study was subjected to students 't' test for unpaired data to assess the statistical significance. The 'P' value less than 0.05 is considered as statistically significant.

**1] Effect on Joint score****Group A:**

Day	Mean	S.D	T	P Value	Percentage
30	2.033	0.413	7.62	P < 0.05	24.66%
60	1.366	0.490	15.23	P < 0.05	49.37%
90	1.100	0.480	15.56	P < 0.05	59.25%

**Group B:**

Day	Mean	S.D	T	P Value	Percentage
30	1.567	0.728	1.88	P > 0.05	12.94%
60	1.533	0.973	1.49	P > 0.05	14.83%
90	1.567	0.728	2.04	P > 0.05	12.94%

**Comparison in Two Groups:**

Day	Group	Mean	S.D	t	P Value
After Treatment	A	1.100	0.481	2.93	P<0.05
	B	1.567	0.728		

From above chart it is clear that the difference in results of both the groups is statistically significant. The comparative value of t = 2.93 (P<0.005) on day 90 indicates that the results obtained in these two groups in Joint score are statistically highly significant. As we already saw in previous charts *Tiritiya Alambushadi Churna* proved to be very effective in reducing Joint score in Study Group (Group A).

**2] Effect on Morning stiffness****Group A**

Day	Mean	S.D	t	P Value	Percentage
30	1.867	0.681	9.05	P < 0.05	29.99%
60	1.167	0.592	13.05	P < 0.05	56.24%
90	0.633	0.615	15.50	P < 0.05	76.22%

**Group B**

Day	Mean	S.D	t	P Value	Percentage
30	1.233	0.626	0.30	P > 0.05	2.75%
60	1.033	0.718	1.31	P > 0.05	13.91%
90	1.167	0.592	0.33	P > 0.05	2.75%

**Comparison of Two groups**

Day	Group	Mean	S.D	t	P Value
After Treatment	A	0.633	0.615	3.42	P<0.05
	B	1.167	0.592		

From above chart it is clear that the difference in results of both the groups is statistically significant. The comparative value of  $t = 3.42$  ( $P < 0.005$ ) on day 90 indicates that the results obtained in these two groups in Morning stiffness are statistically highly significant. As we already saw in previous charts *Tritiya Alambushadi Churna* proved to be very effective in reducing Morning stiffness in Study Group (Group A).

**3] Effect on Pain****Group A**

Day	Mean	S.D	t	P Value	Percentage
30	1.900	0.481	7.71	$P < 0.05$	27.83%
60	1.233	0.430	13.61	$P < 0.05$	53.17%
90	0.700	0.535	18.15	$P < 0.05$	73.41%

**Group B**

Day	Mean	S.D	t	P Value	Percentage
30	1.100	0.712	1.31	$P > 0.05$	13.18%
60	1.100	0.803	1.09	$P > 0.05$	13.18%
90	1.033	0.718	1.56	$P > 0.05$	18.38%

**Comparison of Two groups**

Day	Group	Mean	S.D	t	P Value
After Treatment	A	0.700	0.535	2.04	P<0.05
	B	1.033	0.718		

From above chart it is clear that the difference in results of both the groups is statistically significant. The comparative value of  $t = 2.04$  ( $P < 0.005$ ) on day 90 indicates that the results obtained in these two groups in Pain are statistically highly significant. As we already saw in previous charts *Tritiya Alambushadi Churna* proved to be very effective in reducing Pain in Study Group (Group A).

**4] Effect on Tenderness****Group A**

Day	Mean	S.D	t	P Value	Percentage
30	1.633	0.765	6.02	$P < 0.05$	29%
60	0.933	0.740	11.19	$P < 0.05$	59.43%
90	0.600	0.621	13.26	$P < 0.05$	73.91%

**Group B**

Day	Mean	S.D	t	P Value	Percentage
30	1.333	0.959	1.80	$P > 0.05$	13.04%
60	1.300	1.119	1.42	$P > 0.05$	15.19%
90	1.300	0.952	2.04	$P > 0.05$	15.19%

**Comparison of Two groups**

Day	Group	Mean	S.D	t	P Value
After Treatment	A	0.600	0.621	3.37	P<0.05
	B	1.300	0.952		

From above chart it is clear that the difference in results of both the groups is statistically significant. The comparative value of  $t = 3.37$  ( $P < 0.005$ ) on day 90 indicates that the results obtained in these two groups in Tenderness are statistically highly significant. As we already saw in previous charts *Tritiya Alambushadi Churna* proved to be very effective in reducing Tenderness in Study Group (Group A).

**5] Effect on Swelling****Group A**

Day	Mean	S.D	t	P Value	Percentage
30	1.633	0.669	8.23	$P < 0.05$	30.04%
60	1.167	0.592	9.14	$P < 0.05$	49.78%
90	0.500	0.630	15.50	$P < 0.05$	78.54%

**Group B**

Day	Mean	S.D	t	P Value	Percentage
30	1.267	0.740	0.70	$P > 0.05$	4.95%
60	1.167	0.874	1.22	$P > 0.05$	12.52%
90	1.333	0.844	0.00	$P > 0.05$	0.00%

**Comparison of Two groups**

Day	Group	Mean	S.D	t	P Value
After Treatment	A	0.500	0.630	4.33	P<0.05
	B	1.333	0.844		

From above chart it is clear that the difference in results of both the groups is statistically significant. The comparative value of  $t = 4.33$  ( $P < 0.005$ ) on day 90 indicates that the results obtained in these two groups in Swelling are statistically highly significant. As we already saw in previous charts *Tritiya Alambushadi Churna* proved to be very effective in reducing Swelling in Study Group (Group A).

**6] Effect on Local temperature:****Group A**

Day	Mean	S.D	t	P Value	Percentage
30	1.233	0.679	10.93	$P < 0.05$	40.95%
60	0.700	0.596	12.34	$P < 0.05$	66.66%
90	0.467	0.571	13.38	$P < 0.05$	77.61%

**Group B**

Day	Mean	S.D	t	P Value	Percentage
30	1.200	0.664	0.27	$P > 0.05$	2.67%
60	1.200	0.887	0.23	$P > 0.05$	2.67%
90	1.233	0.568	0.00	$P > 0.05$	0.00%

**Comparison of Two groups**

Day	Group	Mean	S.D	t	P Value
After Treatment	A	0.467	0.571	5.21	P<0.05
	B	1.233	0.568		

From above chart it is clear that the difference in results of both the groups is statistically significant. The comparative value of  $t = 5.21$  ( $P < 0.005$ ) on day 90 indicates that the results obtained in these two groups in Local temperature are statistically highly significant. As we already saw in previous charts *Tritiya Alambushadi Churna* proved to be very effective in reducing Local temperature in Study Group (Group A).

**7] Effect on Grip strength****Group A**

Day	Mean	S.D	t	P Value	Percentage
30	1.467	0.730	7.62	$P < 0.05$	31.22%
60	0.833	0.531	15.28	$P < 0.05$	60.94%
90	0.567	0.568	17.03	$P < 0.05$	73.41%

**Group B**

Day	Mean	S.D	t	P Value	Percentage
30	1.233	0.728	1.72	$P > 0.05$	11.85%
60	1.300	0.837	0.77	$P > 0.05$	7.14%
90	1.200	0.714	1.99	$P > 0.05$	14.28%

**Comparison of Two groups**

Day	Group	Mean	S.D	t	P Value
After Treatment	A	0.567	0.568	3.80	P<0.05
	B	1.200	0.714		

From above chart it is clear that the difference in results of both the groups is statistically significant. The comparative value of  $t = 3.80$  ( $P < 0.005$ ) on day 90 indicates that the results obtained in these two groups in Grip strength are statistically highly significant. As we already saw in previous charts *Tritiya Alambushadi Churna* proved to be very effective in increasing Grip strength in Study Group (Group A).

**8] Functional score****Group A**

Day	Mean	S.D	t	P Value	Percentage
30	1.200	0.664	8.33	$P < 0.05$	38.94%
60	0.767	0.626	13.57	$P < 0.05$	61.00%
90	0.400	0.563	13.71	$P < 0.05$	79.66%

**Group B**

Day	Mean	S.D	t	P Value	Percentage
30	1.467	0.730	1.54	$P > 0.05$	10.22%
60	1.367	0.964	1.76	$P > 0.05$	16.35%
90	1.333	0.802	3.07	$P > 0.05$	18.37%

**Comparison of Two groups**

Day	Group	Mean	S.D	t	P Value
After Treatment	A	0.400	0.563	5.21	P<0.05
	B	1.333	0.802		

From above chart it is clear that the difference in results of both the groups is statistically significant. The comparative value of  $t = 5.21$  ( $P < 0.005$ ) on day 90 indicates that the results obtained in these two groups in Functional score are statistically highly significant. As we already saw in previous charts *Tritiya Alambushadi Churna* proved to be very effective in reducing Functional score in Study Group (Group A).

**9. Total score<sup>4</sup>****Group A**

Day	Mean	S.D	t	P Value	Percentage
30	12.967	3.672	18.09	$P < 0.05$	31.15%
60	8.167	3.141	27.32	$P < 0.05$	56.61%
90	4.967	3.068	31.05	$P < 0.05$	73.63%

**Group B**

Day	Mean	S.D	t	P Value	Percentage
30	10.400	4.107	1.74	$P > 0.05$	8.77%
60	10.000	5.085	1.76	$P > 0.05$	12.28%
90	10.167	4.044	2.31	$P > 0.05$	10.81%

**Comparison of Two groups**

Day	Group	Mean	S.D	t	P Value
After Treatment	A	4.97	3.07	5.61	P<0.05
	B	10.17	4.04		

From above chart it is clear that the difference in results of both the groups is statistically significant. The comparative value of  $t = 5.61$  ( $P < 0.005$ ) on day 90 indicates that the results obtained in these two groups in Total score are statistically highly significant. As we already saw in previous charts *Tritiya Alambushadi Churna* proved to be very effective in reducing Total score in Study Group (Group A).

**DISCUSSION**

*Amavata* is one of the chronic disease mainly affecting the joints with some other constitutional symptoms.

*Ama & Vata* are the two main pathognomic factors held responsible for causation of *Amavata*. Excessive consumption of *Nidana* of *Amavata* in preexisting stage of *Mandagni* leads to formation of *Ama* and simultaneous vitiation of *Tridosha*, especially the *Vata Dosha*. The *Samprapti* originates initially from the *Annavaha Srotasa* and in due course spreads to the other *Srotasa* a mainly *Rasavaha*, *Asthivaha* and *Majjavaha Srotasa*. The *Dusyas* mainly involved in this disease are *Rasa*, *Mansa*, *Asthi* and *Majja*. And *Malas* are *Mutra*, *Purisha*. *Sandhi* is the main site of *Abhivyakti* of *Lakshana*. *Ama*, under influence of vitiated *Vata*, comes in *Sleshmasthan* mainly in *Sandhis* and gets lodged there. *Sandhishoola*, *Sandhishotha*, *Stabdhatva* and *Sparshasehatva* are the cardinal features of *Amavata*. As stated earlier, the disease runs a chronic course of *Jadya*, *Sankocha*, *Angavaikalya* *Mansakshaya* etc. are responsible for crippling of the patients. Other constitutional symptoms like *Alasya*, *Aruchi*, *Balabhransha*, *Vibandha*, *Apakti* etc. are normally found in the patients of *Amavata*.

According to modern point of view the *Amavata* is very similar to rheumatoid arthritis, a disease of unknown etiology. So many hypothesis has been put forward to explain its aetiology but still the research is going on. Now a days theories of autoimmune mechanism, genetic susceptibility and free radical are most commonly

incriminated role in aetiopathology of the disease rheumatoid arthritis. So uncertainty in the aetiology of the disease is the main hurdle to find out an effective treatment. Only the analgesic and anti-inflammatory drugs provide some symptomatic relief but underlying pathology goes on and in due course of time the destruction of the articular cartilage and ankylosis makes the patients to cripple for the rest of the life.

Several formulations have been mentioned for the management of *Amavata* in Ayurvedic classics. In *Bhavaprakash Samhita*, in *Amavata chikitsa adhyaya* mentioned *Tritiya Alambushadi churna* is as like nectar in the management of *Amavata*. All the ingredients of it are easily available and cost effective. *Mundi*, *Gokshuru*, *Guduchi*, *Vrudhadaru*, *Pippali*, *Trivrutta*, *Musta*, *Varun*, *Punarnava*, *Shunthi*, *Amalaki*, *Bibhitaki* and *Haritaki*.

*Mundi* is *laghu*, *ruksha* *gunatmak*, *tikta* *katu* *rasatmak*, *ushna* *veerya* & *katu* *vipaka* so act as *kaphaghna*<sup>7</sup>. By its *Ruksha* *guna*, *Tikta*-*madhura* *rasa* & *Katu* *vipaka* act as *Pittaghna* & due to *Madhura* *rasa*, *Ushna* *veerya* act as *Vataghna*. Thus act as *Tridosahara*.

Being *Laghu*, *Ruksha*, *Ushna* *veerya*, *Tikta* *katu* *rasa*, *Katu* *vipaka* it does *Amapachana*. By these *Gunas* only it decreases *Kleda* in *Meha*, *Shleepad*, *Apachi*, *Kushta*, *Krimiroga*. It purifies blood so useful in *Pliharoga*.

It is *Shothaghna* (anti-inflammatory), *Shoolahar* (analgesic) & *Balya* for *Vatavahini* (nervine tonic). *Guduchi* is a well-known *Rasayana* and *Tridhoshaghana* drug. Considering chronic nature of the disease, it is very useful for treating the disease and also maintaining the health of the patients. It having *Tikta* *pradhan* *rasa* so acts as *Shreshtha* *Amapachak*. It is *Pittasarak* and normalize *Pitta* circulation. It does *Raktashodana*, *Medovishoshan*. *Punarnava* is good *Shothaghna* drug. *Gokshuru* and *Varuna* possess the properties like *Shothaghna*. *Gokshuru* mainly acts on *Mutravaha* *srotas*. It does *Bastishodhan* & acts as *Mutrashodhaka*. by these decreases *Kleda* & reveals

*Naktamutrata. Shunthi by its Laghu guna, Katu rasa and Ushna veerya it does best Amapachana. By its Kledapachaka and Agnidipti properties it decreases Ama, so helpful in Sampraptibhanga in Amavata and reduces swelling and stiffness in Amavata. By Katu vipaka Varun acts as Bhedana and resolves constipation. By it Shothaghna and Shoolaghna properties it acts on swollen and painful condition of joints in Amavata.*

#### **Pharmacodynamic properties of Tiritiya Alambushadi churna<sup>8,9</sup>**

Going through the properties of ingredients in *Tiritiya Alambushadi churna*; most of drugs are *Tikta rasatmaka* and *Madhura anurasatmaka, Ushna viryatmaka, Laghu* and *Snigdha, Madhura vipaka yukta*. On the basis of this, we can infer Pharmacodynamic properties of combined drug (*Tiritiya Alambushadi churna*) as follows.

*Rasa - Tikta rasa, Vipaka - Madhura, Virya - Ushna, Guna - Laghu, Snigdha and Karma - Tridoshaghna, Dipana, Pachana, shothagna, Shulaghna, Kledanashaka, vibandhanashaka.*

*Tikta rasa* is mainly digestive (*pachana*) in property and it is *Asthimajja gami*. Therefore, the overall effect of this *Tikta rasatmaka Churna* can be seen on *Asthimajjavaha srotasas* which are the main *Abhivyaktisthana* of the disease *Amavata*.

By *Laghu guna, Ushna veerya, Tikta pradhan rasa, it does Amapachana*. By these *Gunas* only it decreases *Kleda*. It purifies blood. It is *Shothaghna* (anti-inflammatory), *Shoolahar* (analgesic). It also acts as *Rasayana* and *Tridoshaghana* drug. It does *Medovishashoshan*. By decreasing *Kleda* it reveals *Naktamutrata*. By its *Kledapachaka* and *Agnidipti* properties it decreases *Ama*, so helpful in *Samprapti bhanga in Amavata* and reduces swelling and stiffness in *amavata*. By *Anulomana* property it reveals constipation. By it *Shothaghna* and *Shoolaghna* properties it acts on swollen and painful condition of joints in *Amavata*.

#### **Effect of therapy**

##### **Effect on pain in joints**

Probably by means of *Ushna, Tikta rasa* properties, *Tiritiya Alambushadi Churna* reaches up to the subtle levels and brings about both *Amapachana* as well as removal of obstruction resulting in to *Vatanulomana*. Thus, pain in *Amavata* might have been relieved.

##### **Effect on swelling in joints**

When *Ama* obstructs the micro channels of body, it causes accumulation of *Malabhavas* i.e. *Kleda* which leads to symptom *Sandhishotha*. Due to *Tikta rasa of Tiritiya Alambushadi Churna*, it may resulted in to *Amapachana* and *Kleda shoshana*, and due to *Anulomana* and *Vibandhahara* properties, removal of obstruction by *Ama* and accumulated *Malabhavas* may be effected.

##### **Effect on stiffness**

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 Tiritiya Alambushadi Churna* may have done

*Vatashamana* and *Amapachana*. And thus *Tiritiya Alambushadi Churna* may have relieved morning stiffness.

##### **Effect on tenderness**

Tenderness is mainly due to inflammation of joint capsule. *Tiritiya Alambushadi Churna* might have subsided inflammation and thus tenderness might have reduced.

##### **Effect on functional capacity**

This improvement in the functional capacity might have been due to enhancement of nourishment of all the *Dhatus* by *Rasa dhatu*, as *Tiritiya Alambushadi Churna* removes the obstruction in the *srotasas*. *Madhura anurasa-vipaka* and *Rasayana* properties of *Tiritiya Alambushadi Churna* might have added on to the effect.

##### **Effect on associated symptoms**

When the patients were assessed for the associated symptoms, it was observed that patients showed relief from *Angamarda, Trishna, Jvara, Apaka, Agnidaurbalya, Bahumutrata, Kukshishula, Anaha, Nidraviparyaya* and *Vidvibaddhata*. *Aruchi*, 92.86% patients in *Alaysa* and *Angagaurava, Anganamshoonata, and Utshahani*.

*Agnimandya, Ama* production at tissue level, *Dhatu kshaya, vitiation of Vata due to Ama*, are the major events taking place in the pathogenesis, thus eliciting the above symptoms.

*Tiritiya Alambushadi Churna* might have relieved the obstruction in *Rasavaha* and *swedavaha srotasas* there by relieving *Angamarda* and *jvara*.

*Tiritiya Alambushadi Churna* being *Agnivardhaka* might have improved digestion thus overcoming *Agnidaurbalya* and *Apaka*. The *Vata dosha* obstructed by *Ama* in *Koshtha* gets vitiated causing *Anaha* and *kukshishula*. *Tiritiya Alambushadi Churna* by *Amapachana* might have relieved the obstruction of *Vata by Ama*, regularizing the normal motion of *Apana vayu*. Thus *Aanaha* and *Kukshishula* might have relieved.

*Vidvibaddhata in Amavata* is due to obstruction of normal motion of *Apana vayu* and improper differentiation of *Ahara (Sara-kitta vidhajana)*. *Tiritiya Alambushadi Churna* might have improvised *Sara-kitta vibhajana* and normalized the motion of *Apana vayu* there by might have relieved *Vidvibaddhata*.

*Dhatvagnimandya in Amavata* leads to excess production of *Kleda* and hence leads to symptom *Bahumutrata*. *Tiritiya Alambushadi Churna* might have improved *Dhatvagnis* and minimized *Kleda* formation. Thus *Bahumutrata* might have relieved.

*Tiritiya Alambushadi Churna* might have led to production of *Samyak rasa dhatu* by *Agnivardhana* and *Pachana* thereby enhancing its '*Prinana*' karma. And hence might have relieved *Alasya* and *Utsahani*.

*Tiritiya Alambushadi Churna* is very good at pain relieving. By relieving pain it may have normalised the sleep pattern.

#### **CONCLUSIONS**

The conclusions draw from the present study were as follows.

The majority of the patients belong to age group 31 to 45 year. Maximum patients of this series were female

(66.66%), occupation wise majority of the patients were house wives (44%). equal no. of patients consumed each type of diet. The maximum no. of patients (40%) had *Mandagni*.

In the series the maximum patients had *Vata pradhana pitta prakriti* (32%). *Nidana* factors like *Virudha Ahara* (53%), *Snigdha*, *Guru ahara* were predominantly found in the present work.

General symptoms like *Angamarda*, *Alasya*, *Angagaurava*, *Agnidaurbalya*, *Nidraviparyaya*, *Vidvibaddhata*, *Utsahahani* were found in major proportion of the patients in the study.

#### Effect of *Tritiya Alambushadi Churna*

This therapy provided highly significant relief in pain (73.41%), joint score (59.26%), tenderness (73.91%), stiffness (76.22%), swelling of joints (78.53%), local temperature (77.61%) and improvement in grip strength (73.61%), functional activity (79.66%). i.e., overall total improvement is 73.63%.

In the general associated symptoms patients showed complete relief in *Angamarda*, *Trishna*, *Jvara*, *Apaka*, *Agnidaurbalya*, *Bahumutrata*, *Kukshishoola*, *Nidraviparyaya*, *Vidvibaddhata* and *Anaha*.

None of the patients showed any deterioration in the present study.

Hence, we can conclude on the present study that

As far as *Nidana* is concerned faulty diets, dietary habits and stress due to the domestic problems were commonly found in most of the patients. *Mandagni*, which is the root cause of the disease was observed in most of the patients. The trial drug in this study was very effective in *Agnivardhana* and *Amapachana*. It also improves *Dhatvagnis* and nourishes *Dhatus*. It was a very good combination of *Shoolaghana*, *Shothaghna* and *Amapachaka Dravyas*. So *Tritiya Alambushadi Churna* is very effective in

reducing pain and stiffness quickly. It is also effective in reducing swelling.

On the basis of observations of the studies, administration of *Tritiya Alambushadi Churna* may be recommended for the management of *Amavata*.

#### REFERENCES

1. Shree Yadunanupadhyay, Madhav Nidan (Chaukhamba Sanskrit Sansthan, Varanasi. 2006) Amavata Nidanam 25/7-10, pg no 511.
2. Shri Brahmashankar Mishra and Shri Rupalalji Vaishya, Bhavaprakasha (Chaukhamba Sanskrit Sansthana, Varanasi, 10<sup>th</sup> edition 2002) Madhyamkhanda 26/63, pg. 287.
3. Harrison's, Principles of Internal Medicine, Vol. II, (Mc Graw Hill, 15th edition 2003) Rheumatoid Arthritis, pg.1928
4. Mahajan B.K., Methods in Biostatistics (Jaypee broth. Medical Publisher (P) Ltd, New Delhi, 6th Ed.)
5. Harishastri Paradkar, Ashtanga Hridaya: Sarvangasundara and Ayurved Rasayana commentary, (Chaukhamba Surbharti Prakashan, Varanasi, 6<sup>th</sup> edition, 2000) Nidanshana 12/1pg.513.
6. Vd. Yadavji Trikamji Acharya, Charaka Samhita: Ayurved Dipika commentary by chakrapani (Chaukhamba Prakashan, Varanasi, 2000) Sutrashana 28/3 pg.174.
7. Nadkarni, Indian Materia Medica (Popular Book depo, Mumbai, 3<sup>rd</sup> edition 1996).
8. Kirtikar- Basu, Indian Medicinal Plants( 2<sup>nd</sup> edition. 1984).
9. Database on medicinal plants used in Ayurveda: Pub. CCRAS, Dept. of ISM&H. Govt. Of India, New Delhi, Vol. I to VI, 2002.

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