



# ‘ROLE OF AMRITA BHALLATAKA YOGA IN THE MANAGEMENT OF AMAVATA’-A CLINICAL STUDY’

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## **ABSTRACT-**

RA is an enigmatic disease; it remains unclear whether the disease can be traced back to ancient times or whether it is a more modern disease of civilization. It has been helped considerably in recent years by development in Immunology, Biochemistry and Radiology.

RA has been medically identified for about 200yrs, although bone changes in the skeleton of some Mexican Indian group suggest that the disease may have been around for thousands of years. Research revealed that the first known examples of Rheumatoid disease was found in Platicarpus (a large swimming reptile) which lived about 1,00,000,00 years back. Present study aimed to get effective and safe treatment for “Amavata” with the help of clinical principles of Ayurveda. In this this clinical study the drug named “Amrita Bhallataka”. (Ref-Siddhayoga samgraha, vata vyadhi adhikara) is selected and is administered in shamanamatra for a group of patients as “Bhallataka” is a best rasayan when administered in a best rasayan when administered in proper way.

## **INTRODUCTION-**

“Amavata” is a disorder of Madhyam roga marga along with the involvement of asthivaha and rasavaha strotas. It is derived from two major pathogenic constituents – “Ama” and “Vata” i.e it is due to vitiation of Vata dosha and ama. The Prakupita Vata dosha carries ama & accumulate it in Sleshmasthan (thrik sandhi).<sup>[1]</sup> and different Dhamani resulting into Strotavrodha. It further ends into severe pain in joints (Sandhi shool), swelling (Sandhi shotha), fever (Jwara), stiffness (Stambhta) and deformity.<sup>[2]</sup> along with

other associated symptoms like Body ache, Anorexia, Drowsiness, indigestion etc.. The Prevalence rate of this disease is 0.5% – 1% of the population and Male – Female ratio is 1:3<sup>[3]</sup> Acharya Madhav was the first scholar to give the appropriate definition of Amavata. Vitiated vata and Ama simultaneously enters in the kostha trika and sandhipradesha leading to gatra stabdhata and trika samdivendana.. This condition is known as Amavata. The term ‘yugapat’ means simultaneous vitiation of vata and kapha dosha, <sup>[4]</sup>

Keywords- Rasavaha Strotas ,Strotavrodha., Amavata, Use Of Amrita Bhallataka

### AIM & OBJECTIVE-

To assess the efficacy of Amrita Bhallataka internally the management of Amavata”

### MATERIAL & METHODS –

#### SCHEMATIC PRESENTATION OF PROBABLE VISHESA SAMPRAPTI OF AMAVATA



### SAMAPRAPTI GHATAKA OF AMAVATA

#### 1. Dosha –

Pradhana dosha – prana, udana, vyana, samana, Apana

Madhya dosha – shleshaka, kledaka, bodhaka, Avalambaka

Gauna dosha - pitta – pachaka pitta

- **2. Dushya –**

Dhatu – mainly-‘Rasa’- Angamarda, Aruci, Alasya (Adya & dustya)

Others – Mamsa – Mamsa kshya, bala kshaya

Asthi & majja – Sandhisula, sandhi sotha

Upadhatu – Snayu, kandara,sira Mala – Mutra, purisha

**3. Srotas –**

Mainly – Rasavaha –Aruchi, Angamarda, Alasya. Others – asthivaha

Majjavaha – asthi sule.

Udakavaha – trishna

Mutravaha – Bahunatrata

Purisa vaha – vivandha, amatisara

**4. Srota Dusti-**

Sanga – by Ama

Vimarga gamana – of prakupita vata/tridosha

**5. Agni – Mandagni by – Jatharagni**

Bhatagni

Dhatvagni

**6. Ama – (i) Jatharagnimandyajanita**

(ii) Bhatagnimandya janita (iii) Dhatvagnimandya janita

**7. Udbhava Sthana – Amapakvashayottha**

(i) Amashaya – chief site of production of Ama

(ii) pakvashaya – chief site of vata

**8. Sanchara Sthana – Sarva sharira by rasayani**

**9. Vyakti Sthana – (Where clinical feature appears)**

(i) sarva sharira – angamard etc. (ii) sarva sandhi – sandhi sula, sotha etc.

**10. Adhithana – (plece where dosha get lodged)**

(i) particularly sandhi sthana (ii) Generally shleshma sthana

**11. Roga Marga –**

- Madhyama rogamarga (Vyakti sthana)

- Bahya rogamarga - Abhyantara rogamarga – (may affected later)

**12. Vyadhi Swabhava –**

(i) Chirakari (Chronic nature)

(ii) Asukari (Sudden onset)

(iii) Aghataka (nonfatal)

(iv) punah punh Akramanaseela (recurrence) (v) kshatatam (severity)

Present study, 20 patients with Amavata were randomly selected from OPD and IPD of Kayachikitsa dept at Smt, Shalinitai Meghe Ayurveda College Bhilewada Bhandara .For the patient of this group ‘Amrita Bhallatak’ yoga is selected

### AMRITA BHALLATAK CONTENT<sup>[5]</sup>

Contents	part
Suddha Bhallatak	4
Jala	16
Godugdha	4
Goghrita	1
Sitopala	1

Dose :- 5gm. Twice a day

Anupana :- Sunthi siddha Godugdha

Duration :- 10 weeks.

### CRITERIA FOR ASSESSMENT

Clinical assessment Changes observed in signs and symptoms were assessed by adopting suitable scoring method and objective signs by using appropriate clinical tools. The indoor patients were examined daily and outdoor patients examined in every 15 day

**The scoring pattern to the clinical signs & symptoms are enlisted below :-**

(cardinal symptom)

#### (1) Sandhi Sula – (joint pain)

(a) No pain – 0

(b) Mild pain of bearable nature come occasionally-1

(c) Moderate pain but no difficulty in joint movement appears frequently and requires some upashaya measures for relief – 2.

(d) Slight difficulty in joint movement due to pain – 3.

(e) More difficulty in moving the joint, severe pain and disturbing sleep – 4.

**(2) Sandhi shotha – (Inflamed joint)**

- (a) All joints affected – 4
- (b) 50% - 60% of total joints affected – 3
- (c) >25% of total joints affected – 2
- (d) 8hrs. – 3

**(4) Sparshasahata – (Tender joint) (Davidson - Ref)**

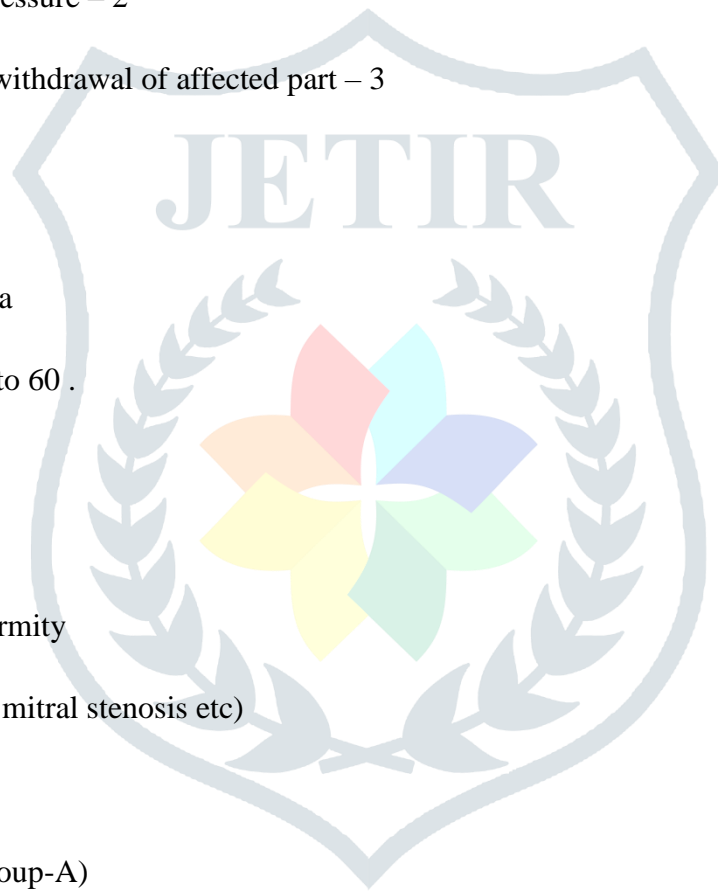
- (a) No tenderness – 0
- (b) The patient says, the joint is tender – 1
- (c) Wincing of face on pressure – 2
- (d) Wincing of face and withdrawal of affected part – 3
- (e) Resists to touch – 4

**Inclusion Criteria:**

- (1) cardinal sign of amvata
- (2) age group between 30 to 60 .

**Exclusive criteria**

- (1) Chronicity > 10 yrs.
- (2) Severe crippling deformity
- (3) Cardiac problem (like mitral stenosis etc)
- (4) Pulmonary TB
- (5) Diabetes (only for Group-A)
- (6) Age = 70 yrs.



**OBSERVATION & RESULT-****TABLE – 1****EFFECT OF R.T ON SAMANYA / PRAVRIDDHA LAKSHANA OF AMAVATA :**

Symptoms	Mean score		% of relief	Paired 't' test			
	B. T.	A. T.		S. D.	S. E.	T	P
Daurvalya	2	0.7	65	0.48	0.15	8.51	<0.001
Angamarda	2	0.5	75	0.53	0.16	9.0	<0.001
Agnimandya	1.8	0.1	94.43	0.67	0.21	7.96	<0.001
Aruchi	1.8	0.2	88.88	0.70	0.22	7.24	<0.001
Hrillasa	0.6	0	0	0.97	0.30	1.96	<0.10
Praseka	0.8	0.2	75	0.97	0.30	1.96	<0.10
Cchardi	0.2	0	100	0.63	0.19	1	-
Kandu	0.6	0	100	0.97	0.30	1.96	<0.10
Vivandha	1.4	0.2	85.70	0.92	0.29	4.13	<0.01
Bhrama	0.6	0.1	3.3	0.99	0.31	3.5	<0.01
Kukshisula	0.6	0.2	66.64	0.89	0.26	1.5	-
Antrakujana	0.4	0.3	25	0.32	0.1	1	-
Anaha	0.4	0.3	25	0.32	0.1	1	-
Daha	0.4	0.2	50	0.42	0.13	1	-
Jwara	1.4	0.4	71.42	0.79	0.25	3.21	<0.05
Trishna	1.4	0.9	35.71	0.71	0.22	2.24	<0.10
Srama	1.4	0.7	49.99	0.67	0.21	3.28	<0.01
Bahumutrata	1.6	0.8	37.5	0.79	0.25	3.21	<0.05
Hritgraha	0.6	0.2	66.6	0.70	0.22	1.81	-
Nidra alpata	0.8	0.5	24	0.82	0.25	2.69	<0.005
Gaurava	1	0.2	80	0.48	0.15	11.13	<0.001

In the series of general symptom, maximum relief was found in Agnimandya, Aruchi, Vivandha (85–90%), other symptoms like Angamarda, Praseka, Bhrama shown relief in between 75–85%. Symptoms like Daurvalya, Kukshisula, Hritgraha, Jwara has shown relief in between 65-75%, other symptoms like Hrillasa, Antrakujana, Anaha, Daha, Trishna, Srama, Bahumutrata have shown relief in between 25-50%.

The initial score of Daurvalya, Angamarda, Agnimandya, Aruchi were 2,2,1.8,1.8, it reduced to 0.7, 0.5, 0.1, 0.2 respectively after the treatment. The difference was found to be highly significant at level of  $p < 0.001$  with 't' value 8.51, 9, 7.96, 7.24.

Difference found in the symptom like Hrillasa, Praseka, Vivandha, Jwara, Trishna, Srama, Bahumutrata are significant at the level  $p < 0.10, 0.05, 0.10$ .

**TABLE NO. – 2**

**EFFECT OF R.T ON AMA LAKSHANA OF 10 PT. OF AMAVAT**

Ama lakshana	Mean score		% of relief	Paired 't' test			
	B.T.	A.T		S.D.	S.E.	t	P
Bala Bhramsa	1.8	0.7	61.10	0.57	0.18	6.13	<0.001
Gaurav	1.8	0.3	83.32	0.71	0.22	6.71	<0.001
Alasya	1.8	0.2	88.88	0.70	0.22	7.24	<0.001
Apakti	1.4	0.4	71.42	0.82	0.25	3.87	<0.01
Nisthiva	0.4	0.1	75	0.67	0.21	1.41	-
Mala sanga	0.8	0.5	37.5	0.67	0.21	1.41	-
Aruchi	1.8	0.6	66.66	0.63	0.19	6	<0.001
Klama	2.0	1.0	50	0.63	0.19	4	<0.01

Score of Ama lakshana assessed before and after treatment shown in the above table. The maximum relief was observed in symptoms like Alasya (88.88%), Gaurav (83.32%), Apakti (71.42%). More than 50% relief was found in symptoms like Bala bhramsa (61%), Klam (50%). A least percentage of relief was found in Malasanga (37.5%).

The mean score of Bala bhramsa prior to the treatment was 1.8 which reduced to 0.7 after the treatment. The difference was found to be highly significant at the level of  $p < 0.001$  where t is 6.13. The mean score of Gaurav, Alasya & Aruchi before to the treatment was 1.8 in both which reduced to 0.3, 0.2 & 0.6 post therapeutically. The difference was found highly significant at the level  $p < 0.001$ . Mean score of the symptoms like Apakti & Klama prior to the treatment was 1.4 & 2.0 which reduced to 0.4 & 1.0 respectively after the treatment. The difference was found significant at  $p < 0.01$ . The difference found in the symptoms like Nisthiva & Malasanga was statistically insignificant.



TABLE NO. – 3

## EFFECT OF R.T ON FUNCTIONAL PARAMETER

Functional parameter	Mean score		% of change	Paired 't' test			
	B.T	A.T		S.D.	S.E.	t	P
Foot pressure in kg.	17.4	22.4	28.7	8.27	2.61	3.8	<0.01
Head grip in mm of Hg	120.7	159.7	31.98	120.5	38.13	2.05	<0.10
Walking time in sec	48.1	35.9	25.36	8.64	2.73	4.47	<0.01

- **Effect on foot pressure in Kg** - The mean score was 14.4 in the beginning which increased to 22.4kg. by the end of the treatment. The result was significant with a 't' value of 3.8 at  $p < 0.01$ .
- **Effect on hand grip power in mm of Hg** – The mean index of hand grip power after treatment was 195.7 which was 120.7 at commencement. The 't' is being 2.05 was significant at  $p < 0.10$ .
- **Effect on walking time in Sec.** – The mean score of 48.1 before treatment was lowered down to 35.9 after the treatment. The overall result was judged to be significant at t was 4.47 where  $p < 0.01$ .

TABLE NO. – 4

## EFFECT OF R.T ON HAEMATOLOGICAL VALUE

Investigation	Mean score		% of change	Paired 't' test			
	B.T	A.T		S.D.(±)	S.E.	t	P
Total	7.660	8,500	10	1670	528.4	1.6	-
WBC/Cumm							
Hbin gm%	10.6	10.8	0.018	1	0.31	0.63	-
ESR	40	32	20	28.21	8.92	0.90	-

The initial mean of total WBC of 7,660 per cumm increased to 8,500 cum. The pre and post therapeutic mean scores of Hb% were 10.6 & 10.8 respectively.

The effect of therapy in lowering the mean score of ESR found from 40 to 32. The difference found in the above three haematological values are statistically insignificant.



TABLE NO. – 5

## EFFECT OF R.T ON BIOCHEMICAL VALUES

Investigation	Mean score		% of change	Paired 't' test			
	B.T	A.T		S.D.(±)	S.E.	t	P
Cholesterol (mg/dl)	174.5	171.2	1.89	8.6	2.72	0.77	-
FBS	70.2	67.7	3.56	13.41	4.24	0.35	-
PPBS	98.8	97.2	1.61	23.34	7.38	0.22	-

- The initial and final value of serum cholesterol were recorded to be 174.5 & 171.2 respectively. The decline was insignificant.
- The mean score of FBS & PPBS before and treatment have a slight difference, which are statistically insignificant, result.

TABLE NO. – 6

## EFFECT OF R.T ON RA FACTOR

RA factor	No. of patients			
	BT	%	AT	%
Positive	2	20	2	20
Negative	8	80	8	80

The above table shows there was no change in concentration of RA factor seen post therapeutically.

TABLE NO. – 7

## EFFECT OF R.T IN RANGE OF MOVEMENT (MAXIMUM JOINT INVOLVED)

Joint	Means score		% of relief	Paired 't' test			
	B.T	A.T		SD	SE	t	p
MCP	37	43.5	17.55	15.67	4.95	2.6	<0.05
Knee	89.5	90.25	0.83	17.65	5.58	3.88	<0.01
Wrist	68.75	103.5	50.38	31.54	9.98	3.48	<0.01

**MCPJ movement in degree :-** The mean initial score of MCPJs movement was 37 which was increased to 43.5° after the treatment. The result is statistically significant at  $p < 0.05$  when 't' is 2.6.

**Knee joint movement in degree :-** The mean score was 89.5° prior to the treatment which increased to 90.25° after the treatment. The difference was found statistically significant at  $p < 0.01$ , where 't' is 3.88.

**Wrist joint movement in degree :-** The mean score of wrist joint movement before to the treatment was 68.75° which was increased to 103.5° after the therapy. The result is statistically significant at  $p < 0.01$  when 't' value is 3.48.

**TABLE NO. – 8**

**EFFECT OF RT ON DOSHA OF AMAVATA**

(A)

Dosha	Means score		% of relief	Paired 't' test			
	B.T	A.T		SD	SE	t	P
Sama vata	6.1	3.1	49.17	1.25	0.39	10.14	<0.001
Vata prakopa	6.5	2.3	64.59	1.40	0.44	9.5	<0.001
Vata vriddhi	6.1	1.4	77.03	0.88	27.84	17.7	<0.001
Kapha vriddhi	4.1	1.1	73.17	1.05	0.33	9	<0.001
Kapha kshaya	4.8	2.1	56.24	1.03	0.32	8.6	<0.001
Kapha prakopa	3.3	0.5	84.84	1.23	0.38	7.20	<0.001

(B)

Dosha	Excellent response	Moderate response	Mild response
Sama vata	0%	70%	30%
Vata prakopa	40%	40%	20%
Vata vriddhi	20%	80%	0%
Kapha vriddhi	20%	80%	0%
Kapha kshaya	30%	60%	10%
Kapha prakopa	60%	40%	0%

**Table (A) :** The above table shows the effect of the therapy on Doshanubandhata of the disease. **Samavata**

– The mean score of Sama vata lakshana prior to the treatment was 6.1 which reduced to 3.1. The difference was statistically highly significant at  $p < 0.001$  where  $t$  is 10.14.

**Vata prakopa** – The initial score of Vata prakopa lakshana was 6.5 reduced to 2.3 post therapeutically. The statistical analysis shows the result is highly significant at  $p < 0.001$  &  $t$  with -9.5.

**Vata vriddhi** – The difference in Vata vriddhi lakshana is noticeable which was 6.1 & 1.4 before & after the treatment respectively. Statistics shows it is highly significant at  $p < 0.001$  when  $t$  is 17.7.

**Kapha vriddhi, Kapha kshaya, Kapha prakopa** – Prior to the treatment the mean score of above mentioned lakshanas were 4.1, 4.8, 3.3 which are reduced to 1.1, 2.1, 0.5 respectively. After the H. statistical analysis found it as highly significant at  $p < 0.001$  with ‘ $t$ ’ value 9, 8.6, 7.2 respectively.

### Table B

It has given the percentage of the patients who responds to the therapy differently.

The Rasayan therapy offered no excellent response in Sama vata in any of the patient. It was mild effective on the same in 30% of the patients. It has shown moderate response in highest number of patients (70%)

Like wise this therapy proves its efficacy on Vata prakopa, Vata vriddhi, Kapha vriddhi, Kapha kshaya, Kapha prakopa lakshana with excellent response in 40%, 20%, 20%, 30%, 60% patients, moderate response in 40%, 80%, 80%, 60%, 40% and mild response in 20%, 0%, 0%, 10%, 0% patients respectively. It has shown moderate response in highest no. of patients.

### TABLE NO. – 9

(A)

#### EFFECT OF R.T ON SROTA DUSTI OF AMAVATA

Srota dusti	Mean score		% of relief	Paired ‘t’ test			
	B.T	A.T		SD	SE	t	p
Rasa vaha	6.8	3.9	42.63	0.88	0.27	10.5	<0.001
Anna vaha	3	1	66.6	0.63	0.19	11.00	<0.001
Asthi vaha	2.2	0.7	68.17	0.53	0.16	9	<0.001
Majja vaha	3.1	1.3	58.05	0.79	0.25	7.22	<0.001

(B)

Srota dusti	Excellent response	Moderate response	Mild response
Rasa vaha	0%	50%	50%
Anna vaha	20%	70%	10%
Asthi vaha	30%	70%	0%
Majja vaha	20%	40%	40%

**Table no. – 9(A) :** The initial mean score of Rasavaha, Annavaha, Asthivaha, Majjavaha srptas dusti lakshanas were 6.8, 3, 2.2, 3.1 which were reduced to 3.9, 1, 0.7 & 1.3 after the treatment respectively. The difference shows statistically highly significant result where  $p < 0.001$  with 't' 10.5, 11, 9, 7.22 respectively.

The highest % of relief has shown in Asthivaha srotas (68.17%) & the least was Rasavaha srotas (42.63%).

**Table no.- 9(B) :** Rasayan therapy offered no excellent response in Rasavaha srotas dusti in any of the patient. It has shown moderate and mild response in the same in 50% of patients each.

Like this, the therapy offered excellent response in Annavaha, Asthivaha & Majjavaha. Srota dusti in 20%, 30% & 20% of patients respectively. It was moderately effective on the same upto 70%, 70% & 40% of patients & mildly effective on the same upto 10%, 0% & 40% of patients respectively.

It has shown a good response in Asthivaha & Annavaha srota dusti in 70% of patients.

**TABLE NO 10. -EFFECT OF R.T ON CARDINAL SYMPTOMS OF AMAVATA**

Cardinal symp.		MEAN SCORE		% RELIEF	Paired 't' test			
		B.T	A.T		S.D	S.E	T	P
1.	Shandhi shula	2.8	1.3	53.56	0.71	0.71	6.71	<0.001
2	Shandhi shotha	2.5	0.8	68	1.06	1.06	5.07	<0.001
3	Sandhi graha	1.9	0.6	52	1.16	1.16	3.55	<0.001
4	Sparsasahata	1.6	0.6	62.5	0.67	0.67	4.74	<0.001

1.Effect on Sandhi shotha – The mean score for Sandhi shotha before treatment was 2.5 which reduced to 0.8 after the treatment. Again this relief was highly significant at  $p < 0.001$

2.Effect on Sandhi graha – The initial mean score of stiffness was 1.9 which reduced to 0.6 after the treatment. The difference was found to be significant at the level of  $p < 0.01$  with 't' value 3.55.

3.Effect on Sparsha Asahyata – The mean score of joint tenderness was 1.6 before treatment which reduced to 0.6 after the treatment. The 't' was calculated to be 4.74 giving highly significant result at  $p < 0.001$ .

## TABLE NO. – 11

## OVERALL EFFECT OF RASAYAN THERAPY

Treatment effect	No. of Pts.	Percentage
Complete remission	3	30
Major improvement	4	40
Minor improvement	3	30
Unimproved	0	0

**The overall effect of the therapy shows** – Rasayana therapy has given complete remission in 3 patients, major and minor improvement was found in 4 & 3 patients respectively. No patient was found with unimproved condition.

**DISCUSSION-****RASAYAN EFFECT –**

Rasayan therapy cures the disease as well as maintain the healthy state of the body. Rasayan is called regeneration, the gradually method of restoring rasa and rakta dhatu.

A state of improved nutrition is claimed to lead to series of secondary attributes like prevention of aging and longevity, immunity against disease, mental competence, increased vitality lusutre of the body. Charka has mentioned so many qualities/effect that obtained from rasayan like-dirgha ayu, smriti, medha, arogya.....etc.

Discussion is the part of a research that will give illumination about findings. As the disease is born out from the vitiated vata and kapha<sup>[6]</sup> in this present study we have selected a shamana yoga which has a definite action on vitiated vata kapha dosha specially as well as an immuno-supressant action in modern point of view. (RA is an auto – immune disorder in which body's immune response fails to recognize its own antigen & foreign antigen <sup>[7]</sup> The prepared shamana yoga (Amrita Bhallatak) also is a well known Rasayan which has possess sothahara and shula prashamana qualities and gives desired Rasayan effect. The drug suitably acts on vitiated vata & kapha and produce the ultimate effect.<sup>[8]</sup>

As per Acharya Charak –Bhallatak is tikshna paki like Agni but if administered properly it is useful like“Amrita” hence the drug is named as ‘Amrita Bhallataka.<sup>[9]</sup>

**RASAYAN PRAYOGA IN AMAVATA –**

Rasayan enchances the qualities of body elements. Therefore immunity is developed. There are a number of Rasayan formulations beside single drug having effect on immune-system.

We already know that immuno-complex in joint space plays the main rode in manifestation of the disease. Immuno-complexes could be said to be formed as a result of failure or inadequacy of elimination or neutralization of antigen. Immunologic tolerance breaks down and the body has diffeculty in difficulty in discriminating between its own antigen and for an antigen. The concept of Ama in Ayurveda could well be inclusive of the concept antigen-antibody complexes. So to suppress the abnormal immune response and to increase the general resistance to disease process rasayan may adminstered.

**MODE OF ACTION OF RASAYAN DRAVYA –**

Rasayan agents promotes nutrition through one of the following three modes.

- (1) By direct enrichment of the nutritional quality of rasa.
- (2) By promoting nutrition through improving the Agni.
- (3) By promoting the competence of srotas.

**EFFECT OF INDIVIDUAL DURG OF SELECTED RECIPES****(C) Probable Action On Agni**

1. **Bhallatak** – Bhallatak possess katu ras, ushna veerya, teekshna, laghu guna, deepaneeya properties. It also possess deepan, pachan, yakrit uttejak krimighna, strotavisodhak, propertaeis, thus it helps to potentiate agni
2. **Ghrita** – It has well known Agni deepan prdoperties.

**(B) Probable Action On Ama**

1. **Bhallatak** – The katu tikta ras, ushna veerya, laghu, tikshna guna which are oppositde to the proterties ama thus eradicate ama & causes srotasmukha bisodhan
2. **Ghrita** – Agni deepan propery of ghrita helps in digesting ama

**(C) Probale Doshaghna Action**

1. **Bhallatak** – by katu rasa, ushna, tikshna guna it ameliporates vitiated vayu and kapha.
2. **Ghrita** – it acts on vitiated vata & pitta by its madhura rasa & snigdha guna.

**(D) Probable Action On Srotadusti**

1. **Bhallatak** – Its deepan propery katu ras digests ama and helps to pacity the srotasamga. Chedan and lekhan action also helps to correct srotasamga. The ushna veerya of the drug pacifies vitated vata & reduces samkocha of srotas.
2. **Ghrita** – It acts on Ama visha and thus corrects the srota samga, due to its deepan property.

**(E) Probable Action On Cardinal Symptom.****Sandhishula**

1.**Bhallatak** - Its katu rasa, ushna veerya digest Ama thus it reduces pain by pacifying chief pathogenic factors i.e. ama.

- By virtue of its tikshna guna it corrects the srotasanga and thus eradicate the vitiated vata which is the main cause of shula

2. **Ghrita** – Its madhura rasa and snigdha guna pacifies vata, the deepan & visaghna properties digests the ama thus ameliorates shula. **Sandhi shotha** –

**4. Bhallatak –**

It's vatakaphaghna properties corrects sandhi shotha, deepan, karma, tikshna and ushna guna ameliorates the causative factors of shotha



**Stabdhata – (stiffness)****1. Bhallatak –**

By virtue of katu rasa, ushna, veerya, tikshna guna and vatanulomaka properties it removes sandhi graham

- By deepan pachan properties it digests the ama and by chedana, lekshana properties it corrects the srota samga thus removes sandhi stabdhata.

**(F) Probable Action On Dusya-**

The main dushya involved in Amavata is rasa dhatu, along with asthi, majja, snayu and kandara. The selected drug has jwaraghna and shothghna properties which indicate that those work at level of rasa dhatu.

Bhallatak is a well-known rasayan thus the drug having rasayan effect performs sarvadhatusamprapatti karma.

**(G) Probable Action As Rasayan**

Every rasayan drug acts in the body through rasa, agni srotos. Bhallatak does its rasayan karma by promoting nutrition through improving the Agnivyapara i.e. digestion and metabolism. It promotes digestion of food and vitalize the metabolic activity status at the level of dhatus. It acts at the level of agni.

**CONCLUSION-**

Ayurvedic classics provides a clear therapeutic guideline for the treatment of Amavata. Namely langhana, swedana, Tikta – katu – Deepana drugs, Virechana etc. the treatment is based on Ama pachana and amelioration of vitiated vata.

As the disease is born out from the vitiated vata and kapha, in this present study we have selected a shamana yoga which has a definite action on vitiated vata kapha dosha specially as well as an immuno-suppressant action in modern point of view. (RA is an auto – immune disorder in which body's immune response fails to recognize its own antigen & foreign antigen)

The prepared shamana yoga (Amrita Bhallatak) also is a well known Rasayan which has possess sothahara and shula prashamana qualities and gives desired Rasayan effect. The drug suitably acts on vitiated vata & kapha and produce the ultimate effect.

Finally it can be concluded that the Drug taken for the trial (Amritta Bhallataka) was found very effective in alleviating the symptoms of Amavata and also restricting the further disease progress when used after proper sharira / kosta suddhi. Anupana helps the drug to act in its proper way. It adds synergetic results to the aushadha guna. So in the trial drug, Sunthi siddha Godugdha as Anupana found very effective, as Sunthi is the best Ama pachaka. <sup>[10]</sup>Here the Anupana adds the extra result with the trial drug. Bhallatak as a visha dravya proved as Amrita after cooking with Ghrita, Dugdha & Sita. No major side effects or toxic effects are found in any patients during the therapy.



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