

Role of *Bhallatak Guggulu* in the Management of *Amavata* (Rheumatoid Arthritis)

Research Article

Shiv Shankar Shukla^{1*}, Astha Sharma²

1. Assistant Professor, Department of Sharir Kriya, Government Ayurvedic College, Burhanpur, MP
2. PG Scholar, Department of Swasthavritta, National Institute of Ayurveda, Jaipur.

Abstract

Background and objectives: - *Amavata* (Rheumatoid arthritis) is a most remarkable problem in the society in modern era. In *Ayurveda*, many approaches are in practice to treat *Amavata* but still it remains a challenging problem. *Ayurveda* considers *ama* as the root cause of disease *amavata*. **Design:** Double blind randomized interventional trial. **Participants:** age group of 20-60 yrs. **Method:** 60 patients were selected from OPD and IPD of A & U Tibbia college and hospital, Delhi. They were randomly divided in two groups. *Bhallatakadi Churna with guda* in Group A and *Bhallatak guggulu* in Group B administered for three months of duration with follow up at every fifteen days. **Outcome measures:-** The assessment of efficacy of drug was made through scoring of clinical features and Laboratory parameters i. e. RA factor, ASO titre. **Results:** Present study reflects that both regimes- *Bhallatak churna* with *guda* and *Bhallatak guggulu*, have given very good relief in sign and symptoms of *Amavata*, but in group B who received *Bhallatak Guggul* showed faster and better improvement. **Conclusion:-** *Bhallatak Guggulu* is safe, beneficial and very effective in management of *Amavata* and also in Rheumatoid arthritis.

Keywords: *Ama*, *Amavata*, *Ayurveda*, *Bhallatakadi Churna*, *Bhallatak guggulu*, *Guda*, *Rheumatoid Arthritis*.

Introduction:-

Amavata is chronic systemic disease having painful multiple joint involvement. In *Ayurveda Madhavakar*(700AD) mentioned first the *Amavata* as a special disease entity and where *ama* as well as *vata* plays a predominant role in the *samprapti* (pathogenesis) of the disease (1). Rheumatoid arthritis is a chronic, progressive autoimmune arthropathy and is characterised by bilateral symmetrical involvement of joints with some systemic clinical manifestations. (2)

Ayurveda is an ancient scientific medical knowledge in the world. So many *Ayurvedic* medicines had been described in *Ayurveda* for the treatment of *Amavata* (Rheumatoid arthritis). *Amavata* is a most remarkable problem in the society in modern era.

Ayurveda considers *ama* as the root cause of disease *amavata*. *Ama* is a mucoid, slimy substance caused due to the malfunctioning of digestive and metabolic mechanisms. This *ama* is detrimental to *srotas*(body channels) due to its clogging capacity. While circulating in body along with *vata* it produces this agonising disease called *amavata*, which is very

difficult to treat, and if not treated, leads to *angavaikalya* (deformities). (3)

The prevalence rate of this disease is about 3% with a male to female ratio of 1:3. It occurs throughout the world in all climates and ethnic groups.

The conceptual study on rheumatoid arthritis and *amavata* revealed that there is striking similarities between etiopathogenesis of RA and *amavata*, and it was found that basic pathology in RA is microvascular injury caused by inflammatory mediators, especially in synovium which is nothing *srotavarodha* and *srotobhisyanda* caused by *ama* in *dhamanis* of *sleshma sthana* specially *sleshma dharana kala* of joints.

Several dreadful diseases are prevalent in medical science. The scope for therapeutic measures is limited even after extreme advancement of the modern biomedical science. The rheumatological disorder is a group of diseases that has no specific medical management in any type of therapeutics. In spite of the description of multiple drug therapy on *Amavata* in different classics of *Ayurveda*, potential and durable results are not found due to non-removal of the basic cause. Hence, special emphasis should be put into searching for a standard and suitable drug for *Amavata*.

In ancient literature of *Ayurveda* specially in *Vrihatrayi*, various *measures* and medicinal preparations are described for treating articular diseases. The disease *amavata* is described elaborately for the first time by *Madhav* in seventh century only. *Chakradutta* has not only outlined the *chikitsa siddhanta* for the disease *amavata* for the first time but

*Corresponding Author:

Shiv Shankar Shukla,

Assistant Professor, Department of Sharir Kriya,
Government Ayurvedic College,
Burhanpur, MP.

Email address: dr.ayursss@gmail.com

has also been described several preparations for treating the disease. Hence, Ayurvedic medicine i. e. *Bhallatak guggulu yoga* has been selected from *Yogaratanakar* for clinical evaluation on the management of *Amavata* (Rheumatoid arthritis).

The trial drug *Bhallatak guggulu yoga* consists of four herbs i. e. *Bhallatak*, *Guggulu*, *Haritaki* and *Krishna Tila*. These herbs are not only excellent in doing *deepana*, and *pachana* functions but also comprising *vyadhi nashak guna*. (4)

These drugs also have anti-inflammatory, immune modulatory, anti-oxidant anti-arthritic and cartilage protective activity. (5)

In *Ayurveda* many approaches are in practice to treat *amavata* but still it remains a challenging problem. Hence, the study is planned for better management of *Amavata* patients with enhanced quality of life.

Aims and Objectives

The present research trial has been undertaken with the following objective.

To validate Ayurvedic concept of rheumatology on scientific lines

To evaluate efficacy of *Bhallatak Guggulu Yoga* in the management of *Amavata*.

To develop safe and cost effective Ayurvedic drug for Rheumatoid arthritis.

Material and methods

Selection of cases

Total 60 cases divided in to two groups equally.

Group A-This group of 30 patients were given *Bhallatakadi churna* with *guda*

Group B-This group of 30 patients were given *Bhallatak Guggulu*.

The drug for group A was given in dose of 2.5gm twice a day while *Bhallatak guggul* was given in the dose of 500mg TDS in group B.

Source

Patients for the present study were screened out from the O. P. D. and I. P. D. of *Kayachikitsa* Department of A & U Tibbia College and Hospital, Karol Bagh, New Delhi.

Age Group: between 20-60 years were selected.

Study design: Double blind randomised interventional clinical trial.

Inclusive criteria

- Age—20-60 years
- Patients of *Amavata* (Rheumatoid Arthritis) fulfilling the criteria of Clinical symptoms of *Amavata* mentioned in *Ayurvedic* classics.
- Patient able to participate in the study and ready to follow the instruction and consent for three months.

Exclusive Criteria

- Age below 20 and above 60.
- All complicated cases having any advanced

deformity of rheumatoid arthritis.

- Having cardiac diseases, pulmonary tuberculosis and pregnant woman.
- *Pittaja prakrati* and summer season

Criteria for assessment

Subjective criteria:

The results of therapy were assessed on the basis of clinical features of the disease *Amavata*, which are mentioned in *Ayurvedic* classic. The scoring pattern adopted for assessment of clinical features is as follows:

(a) *Angmarda* (Bodyache)

- 0= Absent
- 1= Transiently present
- 2= Present for long period
- 3= Regular present

(b) *Aruchi* (loss of appetite)

- 0= Absent
- 1= Present but not complained
- 2= Present and complained
- 3= Distressing in social life

(c) *Alasya* (Listlessness)

- 0= Absent
- 1= Present but not effecting the life
- 2= Present for such work which need more effort
- 3= Present and effecting routine biological activity

(d) *Gaurav* (Heaviness of body and joints)

- 0= Absent
- 1= Present but not complained
- 2= Present and complained
- 3= Distressing in social life

(e) *Trishna* (thirst)

- 0= Absent
- 1= Only feeling

(f) *Jvara* (fever)

- 0= Absent
- 1= only feeling
- 2= Temp. Above normal but <100°F
- 3= Temp >100°F

(g) *Apaki* (Indigestion)

- 0= Absent
- 1= Only occasional and Transient
- 2= Often and Transient
- 3= Very often, presented with associated symptoms

(h) *Sandhishool* (Pain in joints)

- 0= No pain
- 1= Mild pain of bearable nature, comes occasionally
- 2= Moderate pain, but no difficulty in joint movement
- 3= Slight difficulty in joint movements due to pain

(i) *Shoonta anganam*

- 0= No swelling
- 1= Slight swelling
- 2= Moderate swelling
- 3= Severe swelling

(j) *Sandhi graha* (stiffness of the joints)

- 0= no stiffness or stiffness lasts for 5 min.
- 1= 5 min to 1 hour

2= 1 to 2 hour

3= >2 hour

(k) Sparshasahayata (Tenderness of joints)

0= No tenderness

1= Subjective experience of tenderness

2= Wincing of face on pressure

3= Wincing of face with withdrawal of affected parts on pressure

4= Resists to touch

Objective Criteria: Normal range

(a) RA factor(Rheumatoid arthritis factor) 0-20 micro/ml

(b) ASO Titre (Anti streptolysin O) upto 200 IU

(c) CRP (C- Reactive protein) less than 1

Observation and Results

Out of 60 patients, maximum 85% patients were female, 36% patients in between the age of 5th decade, 53% patients were hindu, 85% patients were married, 56% were *kapha pitta prakriti*, 58% were *Kroora koshta* and 61% patients were non vegeterians; 8%patients showed positive family history and 92%patients did not show any family history. Maximum 100% patients had involvement of proximal interphalangeal (hand), MCP and wrist joint involvement.

Effect of both *Bhallatakadi churna* with *guda* and *Bhallatak guggulu* on chief symptoms of *Amavata* is found to be statistically highly significant ($p < 0.001$) (Table no-1). Also statistically highly significant ($p < 0.001$) results were found on general syptoms such as *sandhishoola*, *sandhigraha* and *sandhisparsha ashayata*. (Table no-2).

Table No 1: Effect of drug on symptoms of Amavata

Effect of the drug on	Group	N	Mean		Dif.	% of Change	SD	SE	T	P	Remarks
			BT	AT							
<i>Angmarda</i>	A	30	2.23	0.00	2.23	100	0.63	0.4	19.54	<0.001	H.S.
	B	30	2.13	0.07	2.07	96.88	0.64	0.12	17.70	<0.001	H.S.
<i>Aruchi</i>	A	30	1.57	0.00	1.57	100	0.63	0.11	13.71	<0.001	H.S.
	B	30	1.57	0.00	1.57	100	0.57	0.10	15.10	<0.001	H.S.
<i>Trishna</i>	A	30	0.93	0.10	0.83	89.29	0.46	0.08	9.90	<0.001	H.S.
	B	30	0.80	0.03	0.77	95.83	0.43	0.08	9.76	<0.001	H.S.
<i>Alasya</i>	A	30	1.33	0.00	1.33	100	0.48	0.09	15.23	<0.001	H.S.
	B	30	1.17	0.03	1.13	97.14	0.35	0.06	17.95	<0.001	H.S.
<i>Gaurav</i>	A	30	2.27	0.00	2.27	100	0.52	0.10	23.84	<0.001	H.S.
	B	30	1.83	0.00	1.83	100	0.46	0.08	21.78	<0.001	H.S.
<i>Jvara</i>	A	30	1.37	0.10	1.27	92.68	0.45	0.08	15.43	<0.001	H.S.
	B	30	1.20	0.07	1.13	94.44	0.43	0.08	14.30	<0.001	H.S.
<i>Apaka</i>	A	30	1.90	0.00	1.90	100	0.55	0.10	19.00	<0.001	H.S.
	B	30	1.80	0.10	1.70	94.44	0.47	0.09	19.98	<0.001	H.S.
<i>Shoonta Anganam</i>	A	30	2.03	0.07	1.96	96.72	0.41	0.08	26.03	<0.001	H.S.
	B	30	1.50	0.07	1.43	95.56	0.50	0.09	15.58	<0.001	H.S.

Table No 2: (Effect of drug on general symptoms)

Effect of the drug on	Group	N	Mean		Dif.	% of Change	SD	SE	T	P	Remarks
			BT	AT							
<i>Sandhishool</i>	A	30	2.43	0.63	1.80	73.97	0.71	0.13	13.80	<0.001	H.S.
	B	30	2.07	0.13	1.93	93.55	0.37	0.07	29.00	<0.001	H.S.
<i>Sandhigraha</i>	A	30	2.50	0.13	2.47	94.67	0.61	0.11	21.08	<0.001	H.S.
	B	30	2.10	0.10	2.00	95.24	0.53	0.10	20.86	<0.001	H.S.
<i>Sandhisparsha Asahyata</i>	A	30	1.93	0.43	1.50	77.59	0.57	0.10	14.35	<0.001	H.S.
	B	30	1.43	0.07	1.37	95.35	0.49	0.09	15.27	<0.001	H.S.

The effect of trial drug on RA factor, ASO titre and CRP was found to be highly significant ($p < 0.001$) both in group A as well as in group B, (Table no- 3)

Table No 3: Effect of drug on objective parameters

Effect of the drug on	Group	N	Mean		Dif.	% of Change	SD	SE	T	P	Remark
			BT	AT							
RA Factor	A	30	39.92	22.75	16.50	41.33	19.59	3.58	4.61	<0.001	H.S.
	B	30	24.55	9.75	14.81	60.30	30.77	5.62	2.64	<0.01	H.S.
CRP (C-reactive protein)	A	30	11.37	6.59	4.65	40.89	5.24	0.96	4.86	<0.001	H.S.
	B	30	15.34	5.92	9.42	61.42	22.36	4.08	2.31	<0.10	H.S.
ASO Titre (Anti streptolysin O)	A	30	115.72	99.87	15.22	13.15	17.51	3.20	4.76	<0.10	H.S.
	B	30	101.91	68.46	33.45	32.82	105.83	19.32	1.73	>0.05	N.S.

Discussion

Maximum number of patients belonged to the age group of 41-50 years, which shows its predominance in the middle age group. This data is slightly in accordance with the modern findings, that the onset is most frequent during the fourth and fifth decades of life with 80% of all patients developing disease between the age of 35-50 years. In this study, majority of the patients were female as compared to male. Textual references also reflect the predominance of rheumatoid arthritis in females. In this study, most of the patients had impaired *agni*, with 55 patients (91.67%) exhibiting *mandagni*, this *mandagni* leads to formation of *ama* (basis pathological unit) and *mandagni* also leads to *mooda vata* (impair *anuloman of vata*). Among 60 patients, 58(96.67%) patients exhibiting constipated bowel because *mandagni* decrease the force and action of *saman vayu* and *apana vayu*. In this study, 17 patients (28.33%) had *krura kostha*, 61.67% had *madhyam kostha*, confirming dominance of either *vata or kapha* or both at *kostha* level in *Amavata* patients. These data also support the etiology of *Amavata*, mentioned in classics. *Bhallatakadi churna* comprises of *Haritaki*, *Bhallatak*, *Tila* and *Guda*. *Haritaki* having properties like *amapachan*, *sroto vibandhanashaka* and *dosha anulomana*. *Bhallataka* having *tikshna and ushna guna*, *anuloman*, *deepan*, *pachan* properties helps in stimulating *jatharagni*. *Krishna Til* causing *agnipustikrit* and *kaphapitta nashak* properties which are antagonistic to *Ama* and is very much required in the conditions like *Amavata*. (6) *Guda* having properties like *anabhishandi* and *agnipushtikrita* helps in ameliorating the symptoms of *Amavata*. Also in group B (*Bhallataka guggul*), *guggul* is having *sukshma*,

tikshna and sara properties which is sufficient for the deep penetration of both the *srotas* resulting in pacifying the symptom of *Amavata* and also play an important role in breaking the pathogenesis of disease *Amavata*.

Conclusion

Lastly, it can be concluded that *Amavata* looks similar to Rheumatoid Arthritis in its clinical appearance. *Bhallatak Guggulu Yoga* mentioned in *Yogaratanakar* showed a substantial relief in all parameters whether subjective or clinical of the *Amavata* supporting its anti-inflammatory and anti arthritic action. Present study reflects that both regimens -*Bhallatakadi churna* with *guda* and *Bhallatak guggulu*, have given very good relief in signs and symptoms of *Amavata*, but in group B who received *Bhallatak Guggulu* showed faster and better improvement.

References

1. Upadhyaya Y. N. , Sanskrit Commentary by Sri Vijayarakshita and Sri Kanthadatta. Madhava Nidana of Madhavakara, 3rd edi. Varanasi; Chaukamba Sanskrit Series;1970, 105-110pg.
2. Arend W. P. Physiology of cytokine pathways in Rheumatoid arthritis. 4th edi, 2001;101-106pg.
3. Dwarkanath. C. Introduction to Kayachikitsa. 3rd edi. Varanasi; Bharati publication;1986;95pg
4. Vaidyaraj Datto Borkar. Yogaratnakar. 6th edi. Pune; Gajanan book depot prakashan.
5. Raghumathanand K, Roma Mitra. Pharmacognosy of Indigenous drugs. 7th edi. , New Delhi, CCRAS, 2001;
6. Brahmashankar Mishra. Bhavaprakash Nighantu-Vidyotini Hindi Commentary, 6th edi, Varanasi, Chaukambha Sanskrit Sansthana.
