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### Case Study

## EFFECT OF AYURVEDA TREATMENT INTERVENTION IN RHEUMATOID ARTHRITIS- A CASE STUDY

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### ABSTRACT

Rheumatoid arthritis (RA) is a chronic multi-system disease, with characteristic features of persistent inflammatory synovitis that usually involve peripheral joints in symmetric distribution. RA is correlated with *Amavata* mentioned in Ayurveda. "*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 line of treatment of *Amavata* includes *Langhan*, *Swedana*, *Virechana*, *Snehpana*, *Basti*, *Deepaniya Dravya* And *Katu – Tikta Rasa Dravya*. **Case study:** A female Patient of 57 year with the complaints of multiple joint pain and swelling since 4 years, Morning stiffness for 2 hours, incomplete evacuation of bowel and gastric distension in abdomen. Associated symptoms were body ache, stiffness and tenderness at joints. Laboratory investigation showed that RA factor was positive (RA test titer 229.50. CRP was raised upto 47.21 mg/ dl. ESR was also raised (105 mm after 1 h by Wintrob's method). She was treated with *Sunthi- Guduchi siddha Jala*, *Ruksha Baluka Swedana*, *Vaishvanar churna*, *Sinhanada Guggul*, *Rasnasaptak kwatha* for the period of 8th weeks with followup of every two weeks. **Result:** Patient showed significant improvement in subjective parameters like *Angarmarda*, *Aruchi*, *Trushna*, *Alasya*, *Gaurav*, *Jwara*, *Sandhishotha*, *Sandhishoola*, *Sandhistambha* and also in parametric

variables (Das 28 score, Disability index score, Walking time(for 25 feet distance), Hand grip pressure (in mm Hg), Foot pressure (in kg), RA, CRP, ESR. **Conclusion:** With apt application of Ayurveda principles good results can be seen. In this study, the above said treatment has received positive response towards subjective and objective parameters. This is effect seen in this case and needs more studies to substantiate effect of Ayurveda treatment in amavata (RA).

**KEYWORDS:** *Amavata*, Rheumatoid Arthritis, *Sinhanada guggul*, *Baluka sweda*, *Rasnasaptak*

## INTRODUCTION

Rheumatoid arthritis (RA) is a chronic multi-system disease, with characteristic features of persistent inflammatory synovitis that usually involve peripheral joints in symmetric distribution.<sup>i</sup> Persistent synovial inflammation often causes cartilage damage and bone erosions that badly disturbs joint integrity, as an outcome of which one third of patients suffer from working disability by five years.<sup>ii</sup> RA is correlated with *Amavata* mentioned in Ayurveda.<sup>iii</sup>

“*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 *Sleshmasthanas* (*thrik sandhi*) and different *Dhamani* resulting into *Strotavrodha*.<sup>iv</sup> It further ends into severe pain in joints (*Sandhi shool*), swelling (*Sandhi shotha*), fever (*Jwara*), stiffness (*Stambhta*) and deformity 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>v</sup> It is developed in the age group of 35 – 50 years in 80% cases. This dreadful disease has been increasing day by day and the numbers of patients suffering from this disorder are fond of better line of treatment. The management of contemporary science include Immunosuppressant therapies, Glucocorticoids, NSAID's etc. These medications have no curative use and only target is to improve the quality of life of the patient. Also these drugs are more prone to cause toxicity in the body. In Ayurvedic texts detail description had been mentioned for the management of *Amavata*. According to Acharya Chakradutta the line of treatment of *Amavata* includes *Langhan*, *Swedana*, *Virechana*, *Snehpana*, *Basti*, *Deepaniya dravya* and *Katu – Tikta rasa dravya*.

## CASE STUDY:

A female Patient of 57 year visited in OPD of Kayachikitsa with OPD no. – 33202200043097 at National Institute of Ayurveda, Jaipur. Here the complaints presented by her were – Multiple joint pain and swelling since 4 years, Morning stiffness for 2 hours, incomplete evacuation of bowel and gastric distension in abdomen. Associated symptoms were bodyache, stiffness and tenderness at joints. Laboratory investigation

showed that RA factor was positive (RA test titer 229.50. CRP was raised upto 47.21 mg/ dl. ESR was also raised (105 mm after 1 h by Wintrob's method).

**History of past illness:** No Relevant Past history of Diabetes mellitus, Hypertension or any other chronic disease. There is H/O taking NSAID'S for management of pain.

**Diagnosis:** According to American College of Rheumatology (ACR) and European league against rheumatism (EULAR) criteria 2010, it was case of RA.<sup>vi</sup> According to Ayurveda differential diagnoses considered were *amavata*<sup>vii</sup>, *vatarakta* (~ gout)<sup>viii</sup> and *sandhigatavata* (~osteoarthritis)<sup>ix</sup>. In view of involvement of small as well as big joints and absence of any symptoms related to vitiation of *rakta* (~blood) possibility of *vatarakta* was ruled out. The absence of *vatapurna druti sparsha* lead us to rule out *sandhigatavata*. Hence owing to the body ache (*angamarda*), anorexia (*aruchi*), stiffness (*stambha*) and severe tenderness at joints it was diagnosed as case of *amavata*. ACR/ EULAR 2010 (American college of Rheumatology/ European league against Rheumatism) Criteria was used which showed scoring as below (Table 1)

**Table1: Scoring of patient according to ACR/ EULAR 2010 criteria**

S.No	Criteria	Score
1	Joint involvement	5
2	Serology	3
3	Acute phase reactant	1
4	Duration of symptoms	1
Total Score		10

**Treatment:** Patient was administered following set of drugs for the period of 8 weeks. The treatment protocol designed is as shown in table 2.

**Table 2: Drug Posology**

Study time	Interventions	Dose	Timings
1 <sup>st</sup> week (28/10/2022)	<i>Sunthi- Guduchi</i> <i>siddha Jala</i>	1 lite per day	Throughout day whenever thirsty
	<i>Ruksha Baluka</i> <i>Swedana</i>	10 min	Morning and evening
2 <sup>nd</sup> week (4/11/2022)	<i>Vaishvanar churna</i>	5 gms	Twice a day after lunch and dinner
	<i>Sunthi- Guduchi</i> <i>siddha Jala</i>	1 lite per day	Throughout day whenever thirsty

	<i>Ruksha Baluka Swedana</i>	10 min	Morning and evening
3 <sup>rd</sup> & 8 <sup>th</sup> week (11/11/2022)	<i>Sinhanada Guggul</i>	3 vati each of 500 gm	With empty stomach morning and evening
	<i>Rasnasaptak kwatha</i>	40 ml	With empty stomach morning and evening
	<i>Sunthi-Guduchi Siddha Jala</i>	1 lite per day	Throughout day whenever thirsty
	<i>Ruksha Baluka swedana</i>	10 min	Morning and evening

**Treatment outcome:** the patient was administered medicine for the period of 8 weeks with followup 14 days. The treatment outcome was assessed on subjective and objective parameters. The variation in subjective parameters is as shown in table 3. Variations in other parametric variables is as shown in table 4

**Table 3: Variation in subjective parameters**

Symptoms/ Duration	BT (0 day)	After 2 <sup>nd</sup> wk	After 4 <sup>th</sup> wk	After 6 <sup>th</sup> wk	AT(After 8th wk)
<i>Angarmarda</i>	3	2	2	1	1
<i>Aruchi</i>	3	2	1	1	1
<i>Trushna</i>	1	0	0	0	0
<i>Alasya</i>	3	2	2	2	1
<i>Gaurav</i>	2	2	2	2	1
<i>Jwara</i>	2	1	0	0	0
<i>Sandhishoth</i>	3	3	2	2	1
<i>Sandhishoola</i>	3	3	3	2	1
<i>Sandhistambha</i>	3	3	2	2	1

**Table 4: Variations in Parametric variables**

Parametric variables/ Duration	BT (0 day)	AT(After 56 day)
Das 28 score	8.41	5.12
Disability index score	2.50	1.42
Walking time (for 25 feet distance)	Unable to walk	91 sec
Hand grip pressure (in mm Hg)	30	100
Foot pressure (in kg)	20	47
RA	229.5	166.6

CRP	47.21	68.44
ESR	106	69

**Result:** The above tables show that patient has got significant relief in subjective as well as other parametric variables.

## Discussion

The characteristic feature of *Amavata* was first mentioned by Madhava Nidana but its *Chikitsa* was first described by Acharya Chakradutta. The clinical manifestation of RA can be co-related with *Amavata*. *Amavata* is a *Rasa Pradosaja Vikara* with two major pathogenic factors *Ama* and *Vata*, which mainly affect Sandhi followed by *Asthi* and *Majja*. In this case Patient presented with complaints of multiple joint pain, morning stiffness, difficulty in walking. Some associated symptoms were also present like coated tongue, *Aruchi*, indigestion, heaviness etc. were also present. In *Chikitsa* of *Amavata* the first line of treatment is “Langhana”,<sup>x</sup> as *Amavata* is a *Rasaja* and *Amaja vikara* along with *Vata dosha* predominance. In *Chikitsa* part external as well as internal treatment was given and its mode of action is given below:

*Valuka sweda* – It was done due to the presence of *ama*. The vitiated *Vata dosha* get pacify and hence subside pain as well as stiffness.

*Guduchi sunthi siddha jala*- *Sunthi* is having *Laghu*, *Snigdha Guna*, *Katu Rasa*, *Madhura Vipaka* and *Ushna Virya*. By Virtue of *Ushna Virya* it pacifies *Kapha* and *Vata* and also acts as *Deepana*, *Pachana*, *Shulaprashamana*, *Shothahara*. *Sunthi* help in modulation of metabolic health of disease person. It acts as anti inflammatory agent by producing inhibitory effect on prostaglandin synthesis and leukotriene biosynthesis. *Guduchi* is having *Katu*, *Tikta*, *Kashaya rasa* and *Ushna virya*, it does *Ama pachana*. It also acts as *Agni Deepak* and *Vatahara*. The anti-inflammatory effect of *Guduchi* is mediated via reduction of the pro inflammatory cytokines such as: IL-16, TNF-alpha, IL-6, and IL-17. Due to its *Rasayana* property its action was expected in micro level by cellular repairing, it may be the reason of its immunomodulator effect.

*Vaishwanar churna*- It consists of drugs like *Saindava Lavana*, *Yavani*, *Ajamoda*, *Haritaki*, and *Sunthi*. All these drugs are having *Vata Kapha Hara*, *Deepaniya* *Sothahara* and *Amahara* properties. All these drugs have *Ushna* (~hot), *Tikshna*, *Sara* and *Anuloma* properties by which they remove the obstruction in *Srotas* and helps in proper circulation of tissue as well as improves the digestion and performs *Amapachana* action.

*Rasnasaptak Kashaya*- Maximum ingredients of *Rasnasaptak kashaya* have *vatasleshmahara* property which reduces *vata* and *kapha Dosha* from the body and reduces the symptoms of *amavata*. *Tikta* and *katu rasa* drugs have *dipana* and *pachana* properties which have a significant role in clearing *ama* from body. *Katu rasa* is also known for improving intestinal motility acting as *Vatanulomak*. In terms of *guna*, these drugs have *Laghu* (light), *ushna* (hot), and *tikshnaguna* which are the cause of *agnivardhaka* (digestive

stimulant) property and therefore after clearing *ama* from body, these drugs clear excess kapha and vata from the body. These drugs further prevent the production of ama and clear blocked channels i.e. *srotoavarodha* and help to move *pakva dosha* from *Sakha tokostha* for removal from the body.

*Sinhanada Guggulu*<sup>xi</sup> – It has properties like *Shoolahara, shothahara, vata anulomana, rasayana effects, deepana, ama pachana and balya*. It also enhances the digestive and metabolic capacity. Bitter and pungent tastes present in *Guggulu* possess the antagonistic properties to that of *Ama* and *Kapha Dosha* which are the chief causative factors in this disease. Hot potency of *Guggulu* alleviates vitiated *Vata* and does not allow the *Ama Dosha* to linger at the site of pathogenesis and to create *Srotorodha* (obstruction). It has also the antagonistic action of cold and dryness properties of *Vata* (vitiated air). The scraping nature and bitter taste of *Guggulu* remove the adhered Dosha from the micro channels of body. Thus it controls *Ama and Vata* together and minimizes the process of pathogenesis. All these above powerful ingredients in combination can give excellent result to control symptoms of *Amavata* (Rheumatoid Arthritis).

**Conclusion:** The *vata dosha* and *ama* are major constituents of *Amavata*. Also the Prevalence rate of *Amavata* has been increasing day by day. With apt application of Ayurveda principles good results can be seen. In this study, the above said treatment has received positive response towards subjective and objective parameters. This is effect seen in this case and needs more studies to substantiate effect of Ayurveda treatment in *Amavata* (RA).

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