



## Research Article

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### A MULTIDIMENSIONAL AYURVEDIC APPROACH IN MANAGEMENT OF AMAVATA: A CASE STUDY

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#### ABSTRACT

Amavata is a chronic, progressive and crippling disorder caused due to generation of ama and its association with vitiated vata dosha and deposition in shleshma sthana (joints). Clinically resembling with Rheumatoid Arthritis, it poses a challenge for the physician owing to its chronicity, morbidity and complications. The treasure of Ayurveda therapeutics has laid out detailed treatment line for amavata. A 45years old female patient reported to this hospital with pain and stiffness of metacarpophalangeal joints of right hand followed by pain in corresponding joints of other hand 1 year back. This was succeeded by pain and mild swelling on bilateral wrist, ankle and elbow joints. Blood investigations of the patient revealed that she was anemic with Hb-9.6g/dl, had elevated ESR-65 mm Hg fall in 1<sup>st</sup> hr, and reactive RA factor. Based on clinical examination and blood investigations, diagnosis of amavata was made and Ayurvedic treatment protocol was advised with baluka sweda (sudation) as external application, rasnasaptak kashayam and mahayograj guggul for oral intake for 45 days. The patient was asked for follow up every 15 days up to total of 45 days. Assessment was done subjectively based on clinical symptoms and blood investigations as objective parameters. There was substantially significant improvement and the patient felt relieved of the pain and inflammation of the joints after the treatment. This case study reveals the potential of Ayurvedic treatment protocol in management of amavata and may form a basis for further detailed study of the subject.

**Keywords:** Amavata, Baluka sweda, Rasnasaptak Kashaya, Rheumatoid Arthritis, Yograj Guggul

#### INTRODUCTION

Rheumatoid Arthritis (RA) is a chronic, immune-inflammatory systemic disease that affects synovial joints with extra articular manifestations.<sup>1</sup> It makes life miserable and crippling due to unknown cause, claiming the maximum loss of human working capacity. The symptoms of RA most closely resemble with that of Amavata as mentioned in Ayurveda texts. The disease is a product of vitiation of tridosha though ama and vata are the initiating factors in the pathogenesis<sup>2</sup>. Cakrapaniduta has described the principles and line of treatment for Amavata<sup>3</sup>. Langhana (fasting), Swedana (sudation), use of drug of Tikta (bitter) and Katu (pungent) Rasa, Deepana drugs (stimulating hunger), Virechana (purgation therapy), anuvasana basti (enema) are beneficial in the management of Amavata. Despite the administration of best available modern drugs, the disease has a tendency to progress and cripple the patients. Conventional medicines - NSAID's (Non-steroidal anti-inflammatory drugs) have adverse effects on GIT (gastro-intestinal tract) and DMARD's (Disease modifying anti-rheumatoid drugs) cause hepatic, renal and marrow suppression. Thus, Ayurveda provides a safe, economic and effective treatment of RA. A treatment protocol based on these principles of Ayurveda was designed and administered to a patient of amavata which is presented as a case study. In this regard, a case study has been done to evaluate the role of baluka sweda, rasnasptakam kashayam and mahayograj guggul in patient of Amavata.

#### MATERIAL AND METHOD

The treatment included baluka sweda as external modality and rasnasptakam kashayam and mahayograj guggul for oral intake for 45 days with follow up at every 15 days. The study was

conducted at Government Ayurvedic dispensary, ESI hospital, Jalandhar. The patient was informed about the treatment and the study was carried out ethically in accordance with International Conference on Harmonisation-Good Clinical Practices guidelines.

#### Case Report

A female patient of age 45 years with O.P.D no.4412 dated 12.12.2016 visited Ayurvedic O.P.D of E.S.I hospital with complaint of multiple joint pains for 1 year.

**History of present illness:** - A 45 years old female patient developed pain and stiffness of metacarpophalangeal joints of right hand followed by MCP (meta carpo-phalangeal joint) of left hand 1 year back. After few days, she suffered from pain and mild swelling on bilateral wrist joints. Gradually she developed pain and stiffness on bilateral ankle joints and elbow joints. She was facing difficulty in performing her day to day activities due to pain. She was also suffering from generalised body aches and decreased appetite for last 2 months. She had undergone allopathic treatment-NSAIDS but that provided her only temporary relief. With these complaints, patient approached the Ayurveda O.P.D of this hospital.

**History of past illness:** - History of diabetes, hypertension, rheumatic heart disease, Gout and any chronic disease were absent.

**Family history:** - The mother of the patient had history of rheumatoid arthritis.

**Personal history:** - The patient was enquired about his personal habits and the findings have been shown in Table 1.

**Table 1: Personal History**

<b>Diet</b> - vegetarian	<b>Micturition</b> - 4-5 times/day,0-1/night
<b>Appetite</b> - poor	<b>Sleep</b> - adequate, rarely disturbed
<b>Bowel habit</b> - Irregular	<b>Addiction</b> - nil

**Ashtavidha Pariksha-** The patient was assessed on the Ayurveda diagnostic methods and her ashtavidha analyses and the findings have been tabulated in Table 2.

**Table 2: Ashtavidha Pariksha**

<b>Nadi</b> (pulse) - 82/min, regular	<b>Shabda</b> (speech) - clear
<b>Mala</b> (stool) - often constipation	<b>Sparsha</b> (touch) - Normal, except Warm on wrist joints
<b>Mutra</b> (urine) - frequency-normal	<b>Drika</b> (eyes) - mild pallor
<b>Jiva</b> (tongue) - coated	<b>Akruti</b> (built) - madhyam

**General examination**

**Vitals**

- Pulse Rate -82/min, regular
- Blood Pressure-128/70 mmHg
- Temperature- 96.8 F
- Respiratory Rate- 18/min

**Systemic Examination:** - On examination, patient was found to be conscious and well oriented to time, place and person. Assessment of Central nervous system, Cardiovascular system and Respiratory system of patient was found within normal limits clinically. No clinical abnormality was detected on per abdomen examination. On inspection of Musculoskeletal system, marked swelling was present on bilateral wrist joints with mild restriction of movement. On palpation, tenderness was

observed in MCP joints of hands, wrist joints and ankle joints. However, no joint deformity was present.

**Blood investigation:** - Blood investigations of the patient reveals Hb-9.6g/dl, raised ESR-65 mm Hg fall in 1<sup>st</sup> hr, and reactive RA factor. TLC, DLC and S. Uric acid values were within normal limits.

**Treatment plan:** - Patient was treated in out-patient department. Treatment of the patient started from the date of her 1<sup>st</sup> visit to O.P.D. The duration of treatment was 45 days and follow up was done on every 15 days.

External and internal (oral) treatment schedule given to the patient has been outlined in Table 3

**Table 3: Treatment protocol**

Treatment	Medicine	Dose	Days
External treatment	Baluka sweda	Once daily	45 days
Internal treatment	Rasnasaptkam kashya	20 ml BD	45days
	Yograj guggul	500 mg BD	45 days

**Criteria for selection of medicine-** Rooksha swedana, yograj guggulu and rasnasaptkam kashyam are advised by Cakrapani in patients of amavata. Oral medication was selected on the basis of the properties of ingredients in their formulation composition.

The drugs used are known to pacify vitiated vata-kapha dosha and Ama in amavata and have the ability to relieve its sign and symptoms.<sup>4</sup> details of drugs administered orally have been shown in Table 4.

**Table 4: Drugs included in treatment protocol**

Drug <sup>5</sup>	Formulation composition
Rasnasaptkam Kashayam	Rasna ( <i>Pluchea lanceolata</i> ), Shunthi ( <i>Zingiber officinale</i> ), Devdaru ( <i>Cedrus deodara</i> ), Amrita ( <i>Tinospora cordifolia</i> ), Aragvadha ( <i>Cassia fistula</i> ), Eranda ( <i>Ricinus communis</i> ) Punarnava ( <i>Boerhavia diffusa</i> ), Gokshura ( <i>Tribulus terrestris</i> )
Yograj guggul	Citraka ( <i>Plumbago zeylanica</i> ), Pippalamool ( <i>Piper longum</i> ), Yavani ( <i>Trachyspermum ammi</i> ), Karavi ( <i>Piper chaba</i> ), Ajmoda ( <i>Trachyspermum roxburghianum</i> ), Suradaru ( <i>Cedrus deodara</i> ), Chavya ( <i>Piper cubeba</i> ), Kustha ( <i>Saussurea lappa</i> ), Rasna ( <i>Pluchea lanceolata</i> ), Musta ( <i>Cyperus rotundus</i> ), Usheera ( <i>Vetiveria zizanioidis</i> ), Talispatra ( <i>Abies webbiana</i> ), Haritaki ( <i>Terminalia chebula</i> ), Bibhitaki ( <i>Terminalia bellirica</i> ), Amalaki ( <i>Embllica officinale</i> ), Shunthi ( <i>Zinziber officinale</i> ), Maricha ( <i>Piper nigrum</i> ), Guggulu ( <i>Commiphora mukul</i> )

**Assessment criteria:** - Patient was assessed on the basis of clinical sign and symptoms of amavata mentioned in ayurvedic text and criteria fixed by American Rheumatology association (1987) and implemented after some modifications. Therapeutic effect was recorded using specially prepared Grading scale shown in Table 5 and Table 6.

**Haematological Assessment**

The patient was assessed for the following Haematological parameters before and after treatment.

- Haemoglobin (Hb)
- Erythrocyte Sedimentation Rate (ESR)
- Serum Rheumatoid Factor (RF)

**OBSERVATIONS AND RESULTS**

It was observed (Table 7) that patient had marked improvement in severity of symptoms. Patient gradually recovered with the treatment. There was significant improvement in symptoms of angamarda (bodyaches), aruchi (anorexia), sandhstabhta (morning stiffness) and sandhishula (joint pain). Sandhishula (Table 8) in metacarpo-phalngeal joints, wrist, elbow and ankle joints was completely reduced. Sparshashishnuta (tenderness) in MCP, wrist and ankle joint was markedly improved (Table-9) and no tenderness was elicited on examination post treatment after 45 days. General functionality, gripping power and walking time was markedly improved and patient could walk a distance of 25 feet in two seconds' time post treatment. ESR

(Table 11) was decreased from 65 mm fall in first hour to 30 mm fall in first hour. RA factor was reactive. There was mild improvement in haemoglobin of the patient and it was raised to 10gm%.

**Table 5: Subjective parameters**

Symptoms	0	1	2	3	4
Angamarda (bodyaches)	Absent	Occasional	Intermittent	Often	Always
Aruchi (anorexia)	Absent	Occasional	Intermittent	Often	Always
Jwara (fever)	Normal	Mild	Moderate	High	Hyperpyrexia
Sandhishula (joint pain)	No pain	Mild bearable pain	Moderate pain	Severe pain with slight difficulty in movement	Severe pain with more difficulty in movement.
Sandhishotha (joint swelling)	Absent	Mild, <10% increased circumference of the affected joint	Moderate, >10% increased circumference of affected joint	Severe, >20% increased circumference of the affected joint	-
Sandhistabhta (joint stiffness)	Absent	Mild stiffness lasting less than an hour	Moderate stiffness lasting more than an hour	Severe stiffness for more 2-8 hours	Severe stiffness for more than 8 hours
Sparshashishunta (tenderness)	No tenderness	Mild tenderness	Moderate tenderness	Severe tenderness	Severe tenderness with Resistance to touch

**Table 6: Objective parameters**

Parameters	0	1	2	3
General function capacity	Ability to do all activities without difficulty	Ability to do activities but with difficulty	Ability to do few activities, always require help	Unable to perform activities, bed or chair ridden
Gripping power	200 mm Hg or more	199-120 mm Hg	119 - 70 mm Hg	Under 70 mmHg
Walking time (25 feet in no. of seconds)	15-20 sec	21-30 sec	31-40 sec	>40 sec

**Table 7: Observations**

Symptoms	Before treatment	During treatment		After treatment 45 days
		15 days	30 days	
Angamarda (bodyaches)	2	1	0	0
Aruchi (anorexia)	3	1	0	0
Jwara (fever)	0	0	0	0
Sandhishotha	1	1	0	0
Sandhistabhta	2	1	0	0

**Table 8: Observations of Sandhishula in different joints**

Joint	Before Treatment	During treatment		After Treatment
		15 days	30 days	
MCP	2	1	1	0
Wrist	3	1	1	0
Elbow	2	1	0	0
Ankle	1	0	0	0
Knee	0	0	0	0

**Table 9: Observations of Sparshashishunta in different joints**

Joint	Before Treatment	During treatment		After Treatment
		15 days	30 days	
MCP	2	1	0	0
Wrist	2	1	1	0
Elbow	0	0	0	0
Ankle	1	0	0	0
Knee	0	0	0	0

**Table 10: Functional assessment**

Functional assessment	Before treatment	During treatment		After treatment 45 days
		15 days	30 days	
General functional capacity	1	1	0	0
Gripping power	2	1	0	0
Walking time (25 feet in no of sec)	4	1	2	2

Table 11: Haematological parameters

Parameters	Before treatment	After treatment
Haemoglobin(g/dL)	9.6	10
ESR (mm fall in 1 <sup>st</sup> hr)	65	30
RA factor	Reactive	Reactive

## DISCUSSION

Amavata is a complex of disease, pathogenesis of which lies in generation of Ama after Mandagni. This ama along with vitiated vata and kapha dosha results in dosha-dushya combination, thus generating the nidus for symptoms of Amavata to occur. The aim of the treatment in Amavata is to reduce ama by its metabolism (Amapachana) and to normalise the vitiated vata and kapha dosa. The drugs used in the treatment protocol, act by breaking the pathogenesis of the disease.

Baluka Sweda was performed as part of external treatment. It is a type of ruksha sweda which relieves the stiffness, pain and heaviness in the body and induces sweating.<sup>6</sup> Baluka Sweda is mostly used in Kaphaja disorders and disease originated out of Ama, especially in Amavata. It helps in shoshan (digestion and drying) of ama present in kapha sthana (joints) thus decreasing stiffness of the joint and alleviating the pain. Swedana also increases the dhatwagni at the part involved thereby improving its function and mobility, particularly the joints in this case.<sup>7</sup> Rasnasaptak Kshaya is digestive and carminative (deepana & pachana) due to presence of Amrita, Shunthi, Aragavadha in it. Rasna and devdaru exhibit potential anti-inflammatory effect.<sup>8,9</sup> Yograja guggulu is advised in amavata by cakra pani. Guggulu itself is a good anti-inflammatory agent<sup>10</sup> (sophahara and vedanasthapaka). Yograj Guggul also elicits antiarthritic activity largely due to the prevention of connective tissue breakdown, decreased capillary permeability and improvement of immune system.<sup>11</sup> The combination of these drugs apart from breaking the pathogenesis of the disease, also give symptomatic relief to the patient. It is only because of the action of drugs that the inflammation and pain in joints is reduced remarkably and the patient tolerance is also better in comparison to the DMARD's.

## CONCLUSION

The treatment protocol included combination of external localised and internal medication which worked in tandem to reduce the symptoms of rheumatoid arthritis. The drugs were well tolerated by the patient and her range of movement also improved. A comprehensive detailed clinical study is required to generate potential data to verify the outcomes of this case report.

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