



Amavat in pediatric age group (multidisciplinary Ayurvedic approach):

A single 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 13years old male 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. 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 dashmoolharitaki avaleha for oral intake for 30 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, dashmoolharitaki avaleha, Rheumatoid Arthritis.*

INTRODUCTION

Rheumatoid Arthritis (RA) is a chronic, immune-inflammatory systemic disease that affects synovial joints with extra articular manifestations. 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. Amavata is one such kind of a condition mention in Ayurveda that arises due to the constant use of incompatible combination of food article and regimens

Acharaya Madhvakara has given a detailed description regarding the nidana, samprapti and clinical features on amavata. The disease is a product of vitiation of tridosha

though ama and vata are the initiating factors in the pathogenesis. Cakrapaniduta has described the principles and line of treatment for Amavata. 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 to assess the combined effect of langhana, swedana, deepana and virechana have been undertaken here.

MATERIAL AND METHOD:

Place of study: SMT Ayurvedic medical college and hospital

Case Report : A Patient aged about 13 years old male, student, Hindu by religion. Patient approached the OPD for the above symptoms to get remedy for pain & stiffness.

History of present illness: - A 13 years old male 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, he suffered from pain and mild swelling in bilateral wrist joints.

Gradually he developed pain and stiffness in bilateral ankle joints and elbow joints. He was facing difficulty in performing his day to day activities due to pain. He was also suffering from generalised body aches and decreased appetite for last 2 months. He had undergone allopathic treatment- NSAIDS but that provided him only temporary relief. With these complaints, patient approached the Ayurveda O.P.D of this hospital.

History of past illness: - History of diabetes, hypertension,

Family history: - The mother of the patient had history of rheumatoid rheumatic heart disease, Gout and any chronic disease were absent. arthritis.

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

Table 1: Personal History

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

Nadi (pulse) - 92/min, regular	Shabda (speech) - clear
Mala (stool) - often constipation	Sparsha (touch) - Normal, except Warm on wrist joints
Mutra (urine) - frequency-normal	Drika (eyes) - mild pallor
Jiva (tongue) - coated	Akruti (built) - madhyam

General examination

Vitals

- Pulse Rate -92/min, regular
- Blood Pressure-128/70 mmHg
- Temperature- 96.8 F
- Respiratory Rate- 22/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: - Hb-9.8gm/dl, E.S.R.-35 mm in 1 Hr, T.L.C -10,400 /mm³, D.L.C – N67 L23 E9 M1 B0, S. Uric Acid-4.0 mg/dl, A.S.O. Titre -+VE (400 unit)

Treatment plan: - Patient was treated in out-patient department. Treatment of the patient started from the date of his 1st visit to O.P.D. The duration of treatment was 30 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 .

Treatment	Medicine	Dose	Days
Rookasana with Valuka sweda			1-7 Days
Patrapotali sweda	Sahacharadi taila		8-14 Days
Virechana	Moorchit Eranda tailam	20 ml	15 th day
Internal medication	Rasanasaptak kashay Dashmoolharitaki Avaleha	15 ml BD with warm water 1 table spoon BD	1-30 day

Criteria for selection of medicine–

As rookshana is type of langhaana, it was done in the form of valuka sweda for 7 days and internal Rookshna was done by giving Rasnasaptakam kashata and Dasamoolharitaki avaleha which are deepana possessing tikta-katu rasafor 30 days. sneha swedana was done in the form of patrapottali sweda (using leaves like Nirgudi,Arka, chinja, Eranda etc with sahachara taila. for virechana Eranda taila is used in moorchita form.

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 4 and Table 5.

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 6) 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), sandhistabhta (morning stiffness) and sandhishula (joint pain). Sandhishula (Table 7) in metacarpo-phalangeal joints, wrist, elbow and ankle joints was completely reduced. Sparshashishnuta (tenderness) in MCP, wrist and ankle joint

was markedly improved (Table-8) and no tenderness was elicited on examination post treatment after 30 days. General functionality, gripping power and walking time was markedly improved and patient could walk a distance of 25 feet in two minutes' time post treatment. ESR 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 4: 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
Sparshashishnuta (tenderness)	No tenderness	Mild tenderness	Moderate tenderness	Severe tenderness	Severe tenderness with Resistance to touch

Table 5: 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 6: Observations

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

Table 7: 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 8: 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 9: Functional assessment

Functional assessment	Before treatment	During treatment		After treatment 45 days
		15 days	30days	
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 10: Haematological parameters

Parameters	Before treatment	After treatment
Haemoglobin(g/dL)	9.8	10.15
ESR (mm fall in 1st hr)	35	19
RA factor	Reactive	Reactive

DISCUSSION:

Madhav was the first to identify *Amavata* as a disease in details. *Amavata* is complex disease to deal since there are variety of triggering factors. Due to the unpredictable therapeutic outcomes it is impossible to give accurate information, prognosis & pathogenesis of the disease. Generally *virudhahara*, *virudhachesta*, *mandagni*, sedentary life styles leads to accumulation of *Ama*, which circulates in the body (*vyan-vayu*) & accumulates in kapha predominant places especially in large joints along with the pathogenicity or vitiation of *vata* leads to *Amavata*.

Agnimandya & *Ama* are mainly responsible for the disease. Improving Jathra-gani and removal of ama was the aim of treatment along with vatahara treatment. Hence for the improvement of *Jathragani* & *pachan of Ama*, *Langhana*, *deepan pachana* with *tikt rasa* predominant diet was pre-scribed. The Yograj Guggulu, Rumalaya, Kaishore Guggulu, Aarogyavardhini, Rasnadi

kwath, Manoll were added. These drugs possess *Deepana*, *Pachana*, *Kapha- Vata* alleviating properties, *Shothaghna* and *Rasayana prabhava*. Yograj guggul is the best medicine for vata vikara. It has Triphala and guggul as main ingredient. It act as yogavahi rasayan dhatuposhak and jata-haragni pradeepak. Rumalya tablet possesses analgesic and antiarthritic properties. By regulating the mediators of inflammation, it exerts a significant anti-inflammatory activity. Maharasnadi kwath is also best medicine for vata vikara and more useful when used with yograja guggul. Arogya-varadhini vati is having deepan pachan sroto-shodhak and mala shudhhi kara properties. Amrita satva and Manoll both have rasayan properties. It acts as a immunomodulator and modulates both the humoral & cell mediated immune response to aches & pain. The medicine was found to be effective and safe treatment for patients with aamvata. The result of the present study is in

concordance with several studies on Ayurvedic treatment.

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