



MANAGEMENT OF CHILD WITH AMAVATA THROUGH AYURVEDA PROTOCOL- A CASE STUDY

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ABSTRACT

Amavata is a disease in which vitiation of *Vata Dosha* and accumulation of *Ama* take place in joints. The symptoms of RA most closely resemble that of *Amavata* as mentioned in the Ayurveda text. RA is conventionally managed by Disease-modifying anti-rheumatic drugs (DMARDs) and corticosteroids. The challenge is it does not completely eradicate the disease. Ayurveda has given detailed descriptions regarding the management of *Amavata* which include *Langhana*(fasting) ,*Swedana*(sudation), *Deepana*(stimulate digestion) with *tikta* ,*katu rasa*(bitter and astringent taste) and *Virechana*(laxative). After analyzing the treatment principle of *amavata* described by Acharya chakradutta a combined intervention of *langhana*, *swedana*, *deepana*, *Virechana*(laxative) was undertaken in this case study. A7 years old female child with *Amavata* condition had been successfully treated for two months and followed-up for another month in the Pediatric ward of National Ayurveda Teaching Hospital (NATH) Borella, Sri Lanka. The external and internal treatments were continued for two months. Subjective and objective assessment criteria including visual analogue scale for pain, American rheumatoid association criteria for diagnosing RA were assessed before and after the treatment protocol. Total 5 types of preparation of medicines were used as treatment 3 types of *Kashaya* (*Denibadikashaya*,*Dashamulkashaya*,*Dantimuladikashaya*) 3 types of *vati* (*Yogarajaguggulu*, *Kaishoraguggulu*, *Rheumalaya forte*), 2 types of *churna* (*Sudarshana churna*, *Sufoof Suranjan Churna*) 02 types of *Taila* (*Kubjaprasarini*, *Sarsapadi*), one type of *Pattu* (Application) (*Dashangalepa*, *Rohanekash Lepaya*(Ayurvedic application), *Saindhava Lavana* Clinical improvement in the symptoms(multiple joint pain and swelling,morning stiffness of the joints) was reported after two months of Ayurveda treatment.

Keywords: RheumatoidArthritis, *Amavata*, *Ama*, Ayurveda ,*langhana*, *swedana*, *deepana*,

INTRODUCTION

Amavata is a disease in which vitiation of *Vata Dosha* and accumulation of *Ama* take place in joints. *Amavata* is a disease of *Asthivaha* and *Rasavaha Strotas*. It is mainly produced due to *Ama* and the vitiation of *Vata Dosha*.The *Ama* is carried by the aggravated *Vata* and deposited in *Sleshmasthanas* (Seats of *kapha* like joints

etc.) producing features like *Angamarda* (body ache), *Aruchi* (loss of appetite), *Alasya* (weakness), *Sandhishoola* (joint pain), *Sandhishotha* (joint swelling). Madhavakara (700AD) was the first who described the features of *Amavata* in *Madhava Nidana* where as the treatment of *Amavata* was first explained by Acharya Cakradatta. *Amavata* is a disease of

MadhyamaRogamarga hence it is said to be *Krichrasadhy* or *Yapya*.[1]

This disease affects mainly the young population and the patients are gradually crippled physically as well as mentally due to the bad prognosis of the disease. Hence it is a burning problem in society.

Ayurveda treats root cause of *Amavata* (RA) which leads to breaking the *Sampraptiof* the disease. Acharya Chakradatta described the *Chikitsa Siddhant* for *Amavata*. It includes *Langhana*, *Swedana*, and use of drugs having *Tikta*, *Katu Rasa* with *Deepana* property, *Virechana*, *Snehapana*, and *Vasti*(*Enema*). Here a case of *Amavata* was treated by using *Shamana Chikitsa* given in the *Chikitsasutra*[2]

Rheumatoid arthritis is an inflammatory systemic disease affecting the synovial joints with extra-articular manifestations. In Rheumatoid arthritis, the synovial membrane is infiltrated with lymphocytes, macrophages and plasma cells. The serum contains Rheumatoid factors (RF) which are immunoglobulin (IgM) and behave as antibodies to auto antigenic components of IgG. It appears that the inflammatory changes of Rheumatoid arthritis are brought out as a result of the activation of the antigen-antibody complex. This crippling disorder involves the connective tissue throughout the body in which some antigenic products of streptococci in the throat are absorbed through the blood vessels and lymphatics. These streptococcal antigens activates autogenously tissues to form auto-antibodies which reacts with the specific tissue component to produce lesion in R.A. The characteristics mainly include joint pain, stiffness, tenderness, and restricted movements. Stiffness of the joints is common with increasing age but morning stiffness lasting more than one

hour is a characteristic feature of R.A. The joint involvement is usually symmetrical. The metacarpophalangeal and proximal inter-phalangeal joints of the hands, wrists, knees, and metatarsophalangeal and proximal interphalangeal joints of the feet are most vulnerable to getting involved [3] As per Ayurveda, the disease is produced due to vitiation of the *Tri-doshas* by *Ama* and *Vata*. [4] Acharya Chakradatta has detailed the principles of treatment for *Amavata*. [5] *Langhana*, *Swedana*, *Tikta Katu rasa dravyas*, *Deepana dravyas*, *Virechana*, and *Anuvasana Basti* are some treatment modalities beneficial in *Amavata*. Perhaps, the progressive disease is found difficult to manage despite the best available drugs in modern medicine. Ayurveda does provide a safer, economical, and effective treatment for *Amavata*. The Case Study reveals the Ayurvedic treatment modalities of *Amavata*, efficacy of the treatment etc.

MATERIALS AND METHODS

Case report:

A Female child aged 7 yrs with BHT No:1632/01 IPD of Pediatric, National Ayurveda Teaching hospital Borella in Sri Lanka presenting with multiple joint pain and swelling, morning stiffness of the joints since 2yrs

History of present illness:

2 yrs before, the patient used to walk on her toes. Gait also became different from normal. Gradually pain and stiffness developed in ankle joint, knee joint, and hip joint. The pain was so severe that it was associated with swelling, difficulty in walking and aggravated after exposure to cold. She visited Peradeniya Teaching Hospital in Sri Lanka. They referred her to physiotherapy for 06 months. But she felt uncomfortable. Hence she came to NATH for better management

History of past illness-No relevant history of past illness

Treatment History

Took physiotherapy treatment for 2 yrs H/O of taking painkillers for arthritic complaints

Personal History

Age:- 7yrs

Sex:-Female

Pulse:- 70/min

BP :-110//70mmHg

Temperature:-98 F (37 C)

RR:-15Breaths per minute

Heart Rate :-60 Beats Per Minute

Appetite:- poor

Bowel :-1/ 2 times per day

Bladder :-4-5 times /day,1 times at night

Sleep :-disturbed due to pain

Allergy:--No

Table No 1 Systemic Examination of the patient

System	Inspection	Palpation	Percussion	Auscultation
Cardiovascular system	0	0	0	0
Respiratory System	0	0	0	0
Gastrointestinal tract	0	0	0	0
Genitourinary System	0	0	0	0
Central nervous system	0	0	0	0

3- severe disability ,2-moderate disability,1-mild disability,0-Normal

Musculoskeletal system affected

Inspection: Swelling present on B/L knee joints, ankle joints, wrist joints, hip joint ,spine, interphalangeal joints of both hands. Deformities seen in interphalangeal joints of hand and tenderness present on interphalangeal joints and knee joints.

The range of movement- Painful movements of B/L knee joint, wrist joint ,ankle joint, interphalangeal joints

Investigation

Before treatment RF - 67.0IU/mL after Treatment RF 3.0IU/mL

AstasthanaPariksha (examination of 8 seats)

1. *Nadi*(pulse) –regular
2. *Mutra*(Urine)- No abnormal findings
3. *Malam*(Stool)-No abnormal findings
4. *Jihwa* (Tongue)-Coated
5. *Sabda* (voice)- Clear
6. *Sparsha* (touch) - Normal
7. *Drik*(eyes) – Normal
8. *Akriti* (built) – *Madhyama*

DashavidhaPariksha (10 fold examinations)

1. *Prakriti*(Constitution) –*VataKapha*
2. *Vikriti dosha* (morbidity)- *VatapradhanaTridoshadushya- Rasa*
3. *Satva* (Psychic conditions) -*Madhyama*
4. *Sara* (excellence of tissue elements) - *Avara*
5. *Samhanana* (Compactness of organs) - *Madhyama*
6. *Pramana* (Measurement of organs) - *Madhyama*
7. *Satmya* (homologation) – Sarva rasa
8. *Aharasakti*(power of digestion of food) -*Madhyama*
9. *Vyayamasakti*(power of performing exercise) -*avara*
10. *Vaya* (Age) -7 yrs (*Bala*)

Diagnosis – *Amavata*

Consent

Informed consent was taken from her parents before the treatment

TREATMENT PLAN

Table No 2- Abyantara Chikitsa (Internal Medicine)

Sr No	Medicine	Dose	Anupana	Duration
01	<i>Denibadiya Kashaya</i> (Decoction)	1/4 cup twice a day (60ml)	<i>Ushnajala</i>	14 days 11 th Nov- 24 th nov
02	<i>Sudarshana churna</i>	2.5g twice a day	<i>Ushnajala</i>	14 days 11 th Nov- 24 th nov
03	<i>Yogaraja Guggulu</i>	500mg twice a day	<i>Ushnajala</i>	14 days 11 th Nov- 24 th nov
04	<i>Sufoof Suranjan Churna</i> (Unani medicine)	01 pinch twice a day(0.355g)	<i>Ushnajala</i>	14 days 11 th Nov- 24 th nov

Sarsapadi oil 30 ml – For local application

Swedana – NadiSweda Once per day Morning

Dashangalepa-Upanaha Sweda once per day Evening

Table No 3 Abyantara Chikitsa (Internal Medicine)

Sr No	Medicine	Dose	Anupana	Duration
01	<i>Dashamul Kashaya</i>	1/4 cup twice a day(60ml)	<i>Ushnajala</i>	14 days 26 th Nov-10 th Dec
02	<i>Sudarshanachurna</i>	2.5g twice a day	<i>Ushnajala</i>	14 days 26 th Nov-10 th Dec
03	<i>YogarajaGuggulu</i>	500mg twice a day	<i>Ushnajala</i>	14 days 26 th Nov-10 th Dec
04	<i>Sufoof Suranjan Churna</i>	2.5g twice a day	<i>Ushnajala</i>	14 days 26 th Nov-10 th Dec

Kubja prasarini oil 30ml & *Sarsapadi oil* 30 ml – For local application morning (once per day)

Dashangalepa, Rohanekash Lepaya(Ayurvedic application), *Saindhava Lavana* (Rock salt) 1.25g, *pinda* oil application Evening (once per day)

Table No 4 Abyantara Chikitsa (Internal Medicine)

Sr No	Medicine	Dose	Anupana	Duration
01	<i>Dantimuladi Kashaya</i>	1/4 Cup twice a day (60ml)	<i>Ushna Jala</i>	15 days 12 th Dec- 27 th Dec
02	<i>Kaishora Guggulu</i>	500mg twice a day	<i>Ushnajala</i>	15 days 12 th Dec- 27 th Dec
03	<i>Rheumalaya forte</i> (Himalaya)	500mg twice a day	<i>Ushnajala</i>	15 days 12 th Dec- 27 th Dec

Kubjaprasarini oil 30ml &*Sarsapadi oil* 30 ml Morning– For local application

Swedana- Pinda sweda (Morning)

Dashangalepa, Roghankash, Saindhava Lavana (Rock salt)1.25g,pindaTaila application Evening

Table No 05 Ingredients of Denibadi Kashayam

SL No	Dravya	Botanical Name
1	<i>Binkohomba</i>	<i>Munronia pinnata</i>
2	<i>Kohomba/Nimba</i>	<i>Azadirachta indica</i>
3	<i>Ela Batu/Varthaka</i>	<i>Solanum melongena</i>
4	<i>Katuwelbatu/Kantakari</i>	<i>Solanum xanthocarpum</i>
5	<i>Thotila/Shyonaaka</i>	<i>Oroxylum indicum</i>
6	<i>Diyamitta/Paatha</i>	<i>Cissampelos pareira</i>
7	<i>Lunuvarana/Varuna</i>	<i>Crataeva religiosa</i>
8	<i>Inguru/Ardraka</i>	<i>Zingiber officinale</i>

Table No 06 Patya & Apatya Food &behaviors for the patient

	Patya	Apatya
Food	Rice, Horsegram, Buttermilk, warmwater, Garlic, ginger, Drumstick	Blackgram, kidney beans, sweets, fast foods, uncooked foods, salty spicy oily foods, curd, fish, milk, jaggery, ice creams & cold beverages
Behaviour	Sunlight exposure Pranayama, Yoga, meditation	Daytime sleep, Suppression of natural urges, Exposure to cold, wind, excess stress, keeping awake at night

Follow up duration - 2 month

Preparation of medicine

All medicines for internal and external use were manufactured with good manufacturing practice in Borella Ayurveda Teaching hospital Sri Lanka. Table 05 shows the main ingredients of the medicines used for the treatment

DIAGNOSTIC CRITERIA

Table No 7 Grading of Severity of Pain

SI No	Severity of pain	Grade
1	No pain	0
2	Mild pain	1
3	Moderate but no difficulty in moving	2
4	Slight difficulty in moving due to pain	3
5	Much difficulty in moving body parts	4

Table No 8 Grading of Sandhishotha (swelling)

SI No	Severity of Swelling	Grade
1	No swelling	0
2	Slight swelling	1
3	Moderate swelling	2
4	Severe swelling	3

Table No 9 -Grading of Sparshasahatwa (tenderness)

SI No	Severity of Swelling	Grade
1	No tenderness	0

2	Subjective experience of tenderness	1
3	Wincing of face on pressure	2
4	Wincing of face and withdrawal of the affected part on pressure	3

OBSERVATION & RESULTS

The observation and results are displayed in tables 10,11,12,13 and 14. Tables 2,3,4 represent the improvement objective criteria assessment of the patient

The female baby presented with multiple joint pains and swelling, morning stiffness of the joints since 2yrs. Ayurveda therapy

has been carried out to manage this condition and *sandishoola*, *Sandhisotha* & *Sandhigraha* of ankle joints, knee joints & wrist joints are completely reduced. *Sparshaasahatwa* of left Knee joint, Ankle joint & wrist joint are no change but right side *Sparshaasahatwa* is completely reduced.

Table 10 Assessment of Sandishoola

Lt		Name of the joint	Rt	
BT	AT		BT	AT
3	0	Knee joint	2	0
3	0	Ankle joint	3	0
3	0	Wrist joint	3	0

Table 11 Assessment of Sandhisotha

Lt		Name of the joint	Rt	
BT	AT		BT	AT
1	0	Knee joint	1	0
1	0	Ankle joint	1	0
2	0	Wrist joint	2	0

Table 12 Assessment of Sandigraha

Lt		Name of the joint	Rt	
BT	AT		BT	AT
1	0	Knee joint	1	0
1	0	Ankle joint	1	0
1	0	Wrist joint	1	0

Table 13 Assessment of Sparshaasahatwa

Lt		Name of the joint	Rt	
BT	AT		BT	AT
0	0	Knee joint	0	0
2	2	Ankle joint	1	0
3	3	Wrist joint	0	0

Table 14 Summarization of results

	BT		AT		Improvement
	Lt Rt		Lt Rt		
<i>Sandishoola</i> Of Knee joint	3 2		0 0		Yes
<i>Sandishoola</i>	3 3		0 0		yes

Of Ankle joint			
<i>Sandishoola</i> of wrist joint	3 3	0 0	yes
<i>Sandhisotha</i> Of knee joint	1 1	0 0	yes
<i>Sandhisotha</i> Of Ankle joint	1 1	0 0	yes
<i>Sandhisotha</i> Of Wrist joint	2 2	0 0	yes
<i>Sandigraha</i> Of knee joint	1 1	0 0	yes
<i>Sandigraha</i> Of Ankle joint	1 1	0 0	yes
<i>Sandigraha</i> Of wrist joint	1 1	0 0	yes
<i>Sparshaasahatwa of</i> <i>Knee joint</i>	0 0	0 0	yes
<i>Sparshaasahatwa</i> <i>Of Ankle joint</i>	2 1	2 0	Left side –No change Right side-yes
<i>Sparshaasahatwa of</i> <i>wrist joint</i>	3 0	3 0	Left side –No change Right side-yes

DISCUSSION

The Signs and symptoms of Rheumatoid arthritis can be correlated to that of *Amavata*. Madava Nidana was the first to describe the features of *Amavata* whereas the treatment of *Amavata* was first explained by Chakradutta. In this case the patient presented with multiple joint pain and swelling along with morning stiffness. It can be compared to *Amavata* features like *angamarda*, *Alasya*, *Angasoonaata*, *Sarujam Sotham* in *Sandhis* along with that other *Ama* features like *Jihwaupalepa*, *aruchi* etc. Drugs having *Ushna* *Tikshna* *Deepana*, *pachana*,

vedanahara, *shotahara* properties. The combine efficacy of internal medicines were given to patient. *Denibadi kashaya* having *kapha* *Vataharaproperties* [6] *Dashamul kashaya* having *vata pitta kaphahara* properties, *shotahara*, *vedanastapana* properties helped in reducing the joint pain. *Kubja prasarini taila* helped in reducing pain, stiffness of the joints

The assessment of the patient before and after treatment was taken which showed improvements in the subjective and objective criteria

Table 15 Classification of different types of used preparation of drugs

Name of the preparation of the drug	Type of the preparation of drugs	Total (days)
<i>Denibadikashaya</i>	<i>Kashaya</i>	14
<i>Dashamulkashya</i>	<i>Kashaya</i>	14
<i>Dantimuladikashaya</i>	<i>Kashaya</i>	15
<i>Yogaraja Guggul</i>	<i>Vati</i>	14

<i>Lakshadi Guggul</i>	<i>Vati</i>	15
<i>Sudarshanachurna</i>	<i>Churna</i>	14
<i>SuringenChurna</i>	<i>Churna</i>	14
<i>Rheumalaya forte</i>	<i>Tablet</i>	15
<i>Kubjaprasarinitaila</i>	<i>Oil</i>	30
<i>Sarshapataila</i>	<i>Oil</i>	30
<i>DashangaLepa,RoghaneKash,Sahindalunu</i>	<i>Pattu</i>	30

Table 16 Classification of different types of used preparation of drugs

No	Types of the preparation of drugs	Number of used types of the Preparation of drugs	Percentage of used types of the preparation of drugs
01	Kashaya	03	27.27%
02	Vati	03	27.27%
03	Churna	02	18.18%
04	Taila	02	18.18%
05	Pattu	01	9.09%

CONCLUSION:

According to the case study several external and internal modes of therapy were used as the treatment line of *Amavata* within the duration of two months. Severity of the disease signs and symptoms (*Sandhishoola*, *Sandishota*, *Sandigraha*) were significantly reduced. Among these preparation 3 types of *kashaya* (were included and used. *Denibadi kashaya* was given for the child for first 2 weeks. *Dashamul kashya* was given in 3rd and 4th weeks and *Dantimuladi kashaya* was given in 5th and 6th weeks. The *agni* became normal and improved the digestive power of the child. The sleep became normal. She could walk without pain and without any difficulty. There was a significant improvement. But this is a single case study hence to prove its efficacy there is a need to conduct a study on large number of patients. There were no side effects observed.

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