



FROM NIDANA TO CHIKITSA: UNDERSTANDING AMAVATA THROUGH THE LENS OF AYURVEDA AND RHEUMATOLOGY

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ABSTRACT

Amavata is disease of *Rasavaha strotas*, generally compared with Rheumatoid Arthritis. *Amavata* is the outcome of *Agnidushti*, *Amotpatti* and *Sandhivikruti*. It is the commonest among chronic inflammatory joint disease in which joints becomes swollen, painful & stiff. Due to its chronicity & complications it has taken the foremost place among the joint disease. Despite of the administration of best available modern drugs, the disease has a tendency of persistent progress and cripples the patients. *Amavata* is the prime disease which makes the person crippled and unfit for an independent life and about 60% of the patients become unfit to work 10 years after the onset of the disease. Many peoples in society are unaware about disease and its complications which is responsible for lifelong joint deformities. The therapy which normalize *Agni*, Metabolizes *Ama*, and Regulates *Vata* and maintain healthy *Sandhi* and *Sandhistha Shleshma* will be the supreme one for this disease. Many herbal as well as Ayurvedic preparations are mentioned in the classics which are very effective remedy in *Amavata*.

KEYWORDS: *Amavata*, *Ama*, Rheumatoid Arthritis, *Agni-dushti*, *Amotpatti*, *Sandhivikruti*, Ayurvedic Preparation.

INTRODUCTION

Amavata is the most common endogenous disease in which vitiation of *vata dosha* and accumulation of *ama* take place in joints, which simulate rheumatoid arthritis (RA) in modern¹. *AMA* is maldigested product, which is not homogenous for the body. Vitiating *vayu* circulates the *ama* all over the body through *Dhamanis*, takes shelter in the *shleshma sthana* (*Amashaya*, *Sandhi* etc.), producing symptoms such as stiffness, swelling and tenderness in small joints and big joints, making a person lame². The features of *Amavata* are much identical to RA, an autoimmune disorder which causes chronic inflammatory and symmetrical polyarthritis³. Due to its chronicity and complications it has taken the foremost place among the joint disease.

*Madhav*⁴ was the 1st physician who describes the disease *Amavata*. It seems to be simple disease but its prognosis is not so good. Before the *Acharya Madhava* the concept of *Amavata* was uncertain.

In 1591 Guillaume Baillou, the French physician wrote first book on Arthritis named *Rheumatism* to describe a condition characterized by inflammation, soreness, stiffness in the muscles & pain in & around the joints.

In 1859, sir, Alfred Garrod, the London physician, coins the clinical term "Rheumatoid Arthritis" & the 1st reference is made in medical literature.

The onset is more frequently during 4th & 5th decades of life with 80% of patients developing disease between the age of 30-40 years.

Women are affected approximately 3 times more often than men⁵. Studies suggest that genetics & environmental influences are important in the susceptibility to R.A. There is no doubt modern system of medicine play an important role in overcoming agony of pain, restricted movement & disability caused by the disease. Simultaneously prolonged use of allopathic medicines are not only giving rise to many side effects, toxic symptoms & adverse reactions even including many organic impairments.

OBJECTIVES

- 1) To have an in depth knowledge of *Amavata* in comparison with Rheumatoid Arthritis.
- 2) To understand The Pathophysiology & Symptomatology of *Amavata*.
- 3) To be aware of deformity & complications of *Amavata*.
- 4) To have knowledge for diagnosis of *Amavata* according to Ayurveda as well as Modern science.
- 5) To understand treatment and its efficacy in *Amavata*.

HISTORICAL REVIEW

In *Samhita kala* there is no description regarding *Amavata* as a separate disease entity. Only the passing references in the context of various treatments are available.



Madhavakara was the first author who has described *Amavata* as a separate disease entity, devoted a full chapter (25th) of *Amavata* in his famous treatise *Madhava Nidanam* containing detailed specification concerning aetiopathogenesis, clinical manifestations, complications and prognosis of *Amavata*.

ETYMOLOGY OF AMAVATA

In various literatures, following etymological derivations are mentioned about *Amavata*.

आमेनसिहतो वातः आमवातः⁶॥

- A condition where *Ama* gets associated with *Vata* *Dosha* is known as *Amavata*.
- Improperly formed *Anarasa* is *Ama* and when it vitiates *Vata Dosha*, named as *Amavata*.

Classification of Amavata⁷:

- According to *Doshanubandha*:-

Anubandha of one Dosha	Anubandha of two Dosha	Anubandha of all Dosha
I. Vatanuga Amavata	I. Vata Pittanuga Amavata	Tridoshaja Amavata
II. Pittanuga Amavata	II. Pitta Kaphanuga Amavata	
III. Kaphanuga Amavata	III. Kapha Vatanuga Amavata	

- Classification according to severity –

1. Samanya Amavata
2. Pravridha Amavata

In *samanya Amavata*, the symptoms are more or less general, less severe and not associated with *Upadrava* in comparison to *Pravridha Amavata*.

- Classification according to Chronicity⁸ –

1. Navina Amavata (one year of onset)
2. Jirna Amavata (more than one year)

- Classification according to clinical manifestation – *Acharya Harita*⁹ has classified *Amavata* into following four types on the basis of clinical manifestation –
- ❖ *Vistambhi Amavata*
- ❖ *Gulmi Amavata*
- ❖ *Snehi Amavata*
- ❖ *Pakva Ama* and *Sarvangi Amavata*

NIDANA (ETIOLOGY)¹⁰:

In *Madhava Nidana* specific etiological factors responsible to cause *Amavata* has been mentioned which are –

विरुद्धाहारचेष्टस्य मन्दाग्नेर्निश्चलस्य च |

स्निग्धं भुक्तवतो ह्यत्र व्यायामं कुर्वतस्तथा ||

- *Viruddha Ahara* (unwholesome diet)
- *Viruddha Cheshta* (erroneous habits)
- *Mandagni* (diminished Agni)
- *Nishchalta* (sedentary habits)
- Exertion immediately after taking *Snigdha Ahara*.

PURVARUPA (PRODROMAL SYMPTOMS)

The only text which describes the premonitory signs and symptoms is *Vangasena Samhita*¹¹ namely – 1.) *Shiro Ruja*
2.) *Gatra Ruja*

आमो अपाकहेतुः वातः। स्वनामख्यातरोसिवशेषः॥ (क.दु. भाग १ पृष्ठसंख्या १७८)

- *Ama* is produced due to indigestion (*Apakva Ahara Rasa*) and along with *Vata* it's a well known disease entity.

DEFINITION

युगपत्कुपितावन्तस्त्रिकसन्धिप्रवेशकौ |

स्तब्धं च कुरुतो गात्रमामवातः स उच्यते || (M.Ni.25/5)

When vitiated *Ama* and *Vata* concurrently enters the *Trika Sandhi* and leading to *Stabdhata* (stiffness) in the body, the condition is known as *Amavata*. It signifies that restricted ranges of movement in the affected joints are due to stiffness, and this stiffness is caused by spreading of *Ama* throughout the body by vitiated *Vata*.

RUPA OF AMAVATA (SYMPTOMS):

Madhavakara, *Bhava Mishra*, & other have described the *rupas* of *Amavata* clearly.

They can be classified under following headings

SAMANYA LAKSHANA OF AMAVATA¹²:

अङ्गमर्दोऽरुचिस्तृष्णा आलस्यं गौरवं ज्वरः |

अपाकः शूनताऽङ्गानामामवातस्य लक्षणम् ||

1. *Angamarda* (Bodyache)
2. *Aruchi* (Anorexia)
3. *Trishna* (Thirst)
4. *Alasya* (Lethargy)
5. *Gaurava* (Heaviness)
6. *Jwara* (Fever)
7. *Apaka* (Indigestion)
8. *Angashoonata* (Swelling)

PRATYATMA LAKSHANA OF AMAVATA:

1. *Sandhishoola* (Pain in joints)
2. *Sandhishotha* (Swelling in joints)
3. *Stabdhata* (Stiffness)

DOSHANUBANDHA LAKSHANA (SYMPTOMS AS PER DOMINANCY OF DOSHAS)¹³:

पित्तात् सदाहरागं च, सशूलं पवनानुगम् |

स्तिमितं गुरुकण्डूं च कफदुष्टं तमादिशेत् ||

1. *Vatanubandha* - *Ruka*
2. *Pittanubandha* – *Daha, Raga*
3. *Kaphanubandha* – *Staimitya, Guruta, Kandu*
4. *Vatapittanubandha* – *Ruka, Daha, Raga*
5. *Vatakaphanubandha* – *Ruka, Staimitya, Guruta, Kandu*
6. *Kaphapittanubandha* – *Staimitya, Guruta, Kandu, Daha, Raga*
7. *Sannipataja* – Symptoms of all *doshas*.



PRAVRIDDHA LAKSHANA (SIGN AND SYMPTOMS OF ADVANCED AMAVATA)¹⁴:

स कष्टः सर्वरोगाणां यदा प्रकुपितो भवेत् |
हस्तपादशिरोगुल्फत्रिकजानूरुसन्धिषु ||
करोति सरुजं शोथं यत्र दोषः प्रपद्यते |
स देशो रुज्यतेऽत्यर्थं व्याविद्ध इव वृश्चिकैः ||
जनयेत् सोऽग्निदौर्बल्यं प्रसेकारुचिगौरवम् |
उत्साहहानिं वैरस्यं दाहं च बहुमूत्रताम् ||
कुक्षौ कठिनतां शूलं तथा निद्राविपर्ययम् |
तृदछर्दिभ्रममूर्छाश्च हृद्ग्रहं विड्विबद्धताम् |
जाड्यान्तकूजमानाहं कष्टांश्चान्यानुपद्रवान् ||

1. Agnidaurbalya (Hindered digestive mechanisms)
2. Praseka (Excessive salivation)
3. Aruchi (Anorexia)
4. Gaurava (Heaviness)
5. Vairasya (Distaste in mouth)
6. Ruja & shotha in Hasta, Pada, Shiro, Gulpha, Trika, Janu, Uru Sandhi (Painful swelling of the joints)
7. Vrishchikadanshavatavedana (Nature of pain like scorpion sting)
8. Kukshikathinyata (Hardness in abdomen)
9. Kukshishoola (Pain in abdomen)
10. Vibandha (Constipation)
11. Antrakujana (Intestinal sounds)
12. Anaha (Distension of abdomen)
13. Chhardi (Vomiting)
14. Hridgraha (Stiffness in precordium)
15. Jadya (Stiffness)
16. Bhrama (Vertigo)
17. Murchha (Fainting)
18. Nidra-viparyaya (Disturbed sleep)
19. Daha (Burning sensation)
20. Bahumutrata (Excessive urination)

SAMPRAPTI (PATHOGENESIS)¹⁵:

A proper understanding of *Samprapti* is vital in the planning of the treatment of any disease, since *Chikitsa* as enunciated in Ayurvedic texts is nothing but *Samprapti Vighatana*. Conventionally the *Samprapti* can be categorized in two types.

1) *Samanya* (General) *Samprapti*:- this is a common pathogenesis among various types of a single disease.

2) *Vishishta* (specific) *Samprapti*:- this is a specific pathogenesis for a particular sub type of disease. The *samprapti* of *Amavata* described in *Madhava Nidana* and by some other commentators can be summarized as-

Sanchaya (Accumulation of Doshas): When a person exposed to etiological factors *Viruddha*

Ahara, does *vyayama* after intake of *Snigdha Ahara*, *Chinta*, *Shoka*, *Bhaya* etc. they cause

Dushti of *Agni*, *Dosha prakopa* and *Dushya daurbalya*.

Prakopa (Provocation/Aggravation of Doshas): Due to *Dushti* of *Agni*, *Mandagni* occurs.

Mandagni cause *Ama* formation. Then due to fermentation of *Ama* gets *suktatva* (*Vidagdhatva*) and it converts in *Amavisha*. With the help of vitiated *Vayu* it goes to *Prasaravastha*. Now it is *Samavata*.

Prasaravastha (Spread of Doshas) : *Samavata* goes to *Dhamani* (*Rasavaha Srotasa*). Then *Dushti* of *Amavisha* occurs due to *Tridosha*. So it becomes *Nanavarna* (various colours) and *Atipichchhila* (viscid unctuous and heavy) *Ama*. Now it is *Atidaruna Ama*.

Sthana Sanshraya (Localization/Deposition of Doshas) : *Yugpat Kupita* of *Vata* and *Ama* (*kapha*) with the help of *Dushya Daurbalya* gets *Sthana Sanshraya* in *Rasavaha Srotasa*, *Sleshma Sthana* and *Trika Sandhi*.

Vyakta (Manifestation of Qualitative Changes): As it reaches *Vyakta* stage, most of the symptoms of *Amavata* are manifested like *Daurbalya*, *Hridgaurava*, *Gatrastabdhata*, *Sandhishhula*, *Sandhishotha*, *Sandhigraha*, *Sparshasahyata* etc.

Bheda (Differentiation or Destruction of Tissue): In chronic stage of it, the disease is left.

SAMPRAPTI GHATAKA OF AMAVATA¹⁶

- *Dosha - Tridosha* mainly *Vata* and *Kapha*.
- *Dushya - Rasa, Rakta, Mamsa, Sira, Snayu, Kandara, Asthi* (These constitute *Sandhi* & *Dosha* take *Ashraya* in *Sandhi*), *Majja* (*Asthi* & *Sandhi* are *Mula* of *Majja Vaha Srotas*)
- *Agni - Jaaharagnimandya, Dhatvagnimandya*
- *Ama- Jatharagni, Rasagnimandyajanya Ama*
- *Srotasa - Annavaha, Rasavaha, Raktavaha, Asthi - Majjavaha Srotasa*
- *Srotodushti - Sanga, Vimargagamana*
- *Rogamarga - Madhyama*
- *Udbhavasthana - Ama Pakvashaya*
- *Vyakta Sthana - Sarvasharira* mainly *Sandhisthana*
- *Vyadhi Svabhava - Chirakari*

PATHOGENESIS

- 1) Synovitis (Synovial cell hyperplasia, Hypertrophy with CD4 lymphocytic infiltration and synovial effusion)
- 2) Pannus formation
- 3) Cartilage loss
- 4) Fibrosis
- 5) Bony erosion, deformity, fibrous and bony ankylosis
- 6) Muscle wasting
- 7) Periarticular osteoporosis.

TRIGGERING FACTORS

- 1) Infection
- 2) Vaccinations
- 3) Physical trauma
- 4) Psychological stress

CLINICAL FEATURES OF AMAVATA IN COMPARISON WITH RHEUMATOID ARTHRITIS

- 1) *Hasta sandhi shotha & shoola* – Inflammation & severe pain in metacarpo-phalangeal joints & proximal inter phalangeal joints are affected most severely in Rheumatoid Arthritis.
- 2) *Pada sandhi shotha & shoola* – The feet are often involved especially the metatarso phalangeal joints & subtalar joints are affected.



- 3) *Jaanu gulfa sandhi shotha* – R.A. involves first smaller joints of hands & feet and then symmetrically affects the joints of wrist, elbow, ankle & knee.
- 4) *Angagourava* – Feeling of heaviness in the body.
- 5) *Stabdhata* – In R.A. stiffness of joints, particularly observed in morning hours.
- 6) *Jaadhya* – Due to deformity limited movements in the joints, weakness in grip or triggering of fingers occurs in R.A.
- 7) *Angavaikalya* – Deformity in joints.
- 8) *Sankocha* – Contractures.
- 9) *Vikunchana* – This can be compared to volar subluxation, ulnar deviation which occurs at metatarsophalangeal joints and bilateral flexion contractures of the elbow are observed in R.A.
- 10) *Angamarda* – Body ache, myalgia occurs in R.A.

JOINTS COMMONLY INVOLVED IN R.A.¹⁷

- 1) Finger joints (40%) – MCP & PIP joints
- 2) Shoulder joints (20%)
- 3) Foot joints (20%)
- 4) Wrist joints (15%)

OTHER JOINTS ARE INVOLVED IN CHRONIC RHEUMATOID ARTHRITIS JOINT DEFORMITY IN R.A.¹⁸

- 1) Swan neck deformity in interphalangeal joint.
- 2) Boutonniere (Deformity in R.A. with flexion at proximal interphalangeal joint & hyperextension at distal interphalangeal joint).
- 3) Z deformity in the thumb.
- 4) Volar subluxation and ulnar deviation occurs at metacarpophalangeal joint.
- 5) Bilateral flexion contractures of the elbow.
- 6) Synovitis at the wrist may cause carpal tunnel syndrome.

DIAGNOSIS OF R.A

The diagnosis of R.A. is essentially clinical since there is no specific laboratory test to diagnose it. The occurrence of symmetrical peripheral inflammatory polyarthritis along with early morning stiffness should suggest the possibility of R.A.

AMERICAN RHEUMATISM ASSOCIATION (A.R.A.) CRITERIA FOR DIAGNOSIS¹⁹

- 1) Morning stiffness (>one hour)
- 2) Arthritis three or more joints area
- 3) Arthritis of hand joints
- 4) Symmetrical arthritis
- 5) Rheumatoid nodules
- 6) Presence of Rheumatoid factor
- 7) Radiological changes (hand & wrist)

SADHYA - ASADHAYATA OF AMAVATA (PROGNOSIS)²⁰

एकदोषानुगः साध्यो, द्विदोषो याप्य उच्यते |

सर्वदेहचरः शोथः स कृच्छ्रः सान्निपातिकः||

Madhava Nidana has classified *Sadhya-Asadhyata* of *Amavata* on the basis of

Anubandha of *Dosha*, which are as follow:-

- Involvement of one *Dosha* (*Eka-Doshaja*) – *Sadhya*
- Involvement of two *Dosha* (*Dvi-Doshaja*) – *Yapya*

- Involvement of three *Dosha* (*Sannipataja*), *Sarvadehachara Shotha*.

KRICCHA UPADRAVA OF AMAVATA (COMPLICATIONS)

Upadrava is termed as another clinical condition (Complication) which belongs to the main disease along with same *Dosha* and *Dushya*.

In *Anjana Nidana*²¹ 8 *Upadrava* of *Amavata* are stated that are *Jadyata*, *Antrakunjana*,

Anaha, *Trishna*, *Chhardi*, *Bahumutrata*, *shola*, *Nidranasha*.

According to *Vachaspati* and *Yogaratanakara*²² the symptoms of advanced stage of *Amavata* are *Upadrava* of *Amavata* itself.

CHIKITSA SIDDHANTA OF AMAVATA

Acharya Chakrapani was the pioneer who laid down the principle and line of treatment of *Amavata*. He has described following measure in his text *Chakradatta* –

लंघन स्वेदनं तिक्त दीपनानि कटुनि च।

विरेचनं स्नेहपानं बस्त्याश्चाममारुते ||

सैन्धवाद्येनानुवास्य क्षारवस्तिः प्रशस्यते |

आमवाते पञ्चकोलसिद्धं पानान्नमिष्यते ||

रूक्षः स्वेदो विधातव्यो बालुकापुटकैस्तथा ।

1) *Langhana*: - *Langhana* is the 1st line of treatment to digest Ama. Here *langhana* means not complete fasting but, intake of light food. The duration of *langhana* varies from person to person depending upon individual capacity.

2) *Swedana*: - *Swedana* is sudation therapy; in this disease *swedana* is done locally on affected joints. In *amavata rooksha sweda* is recommended (Sudation without oil/fat). For the procedure of *rooksha sweda valuka* (sand) is recommended. *Snehana* is contraindicated in *amavata*.

3) *Katu, Tikta & Pachak aahar & aushadhi* :- The drug which possess *Katu* (pungent), *Tikta* (bitter) and which act as *deepana*, *pachana* (appetizer) are recommended in *amavata*. These drugs, by virtue of their qualities does *amapachana*, hence may help in relieving *shotha & shoola*.

4) *Virechana*:- For *virechana*, *eranda taila* and *haritaki* are used. In *amavata* without any preoperative procedure, *virechana* is recommended directly. *Eranda* acts as *srotoshodhaka*, *shothahara*, *shoolahara* and *amavatahara*.

5) *Basti chikitsa*:- *Chakradatta* recommends *ksharabasti* and *anuvasanabasti* in *amavata*.

1) Following *tailas* are used in *anuvasana* and *nirooha basti* –

2) *Prasarani taila*, *Bruhat saindhavadi taila*, *Dashmooladi taila*, *Eranda taila* is used as base in preparation of these *tailas*.

6) *Shamanaushadhi*²³:-

Single drugs

- *Guggulu* (*Commiphora mukul*)
- *Eranda* (*Ricinus communis*)
- *Amrita* (*Tinospora cordifolia*)
- *Sunthi* (*Zingiber officinale*)
- *Rasna* (*Pluchea lanceolata*)
- *Nirgundi* (*Vitex negundo*)
- *Bhallataka* (*Semicarpus anacardium*)
- *Lashun* (*Allium sativum*)
- *Punarnava* (*Boerhavia diffusa*)



Compound drugs

Rasaushadhi in Amavata

- Suvarna Bhupati Rasa
- Mahavata vidhwamsa Rasa
- Amavatari Rasa
- Vatagajankusa Rasa

Vati Kalpana

- Sanjeevani Vati
- Agnitundi Vati
- Chitrakadi Vati
- Ama Pramathini Vati

Guggulu in Amavata

- Simhanada guggulu
- Yogaraja guggulu
- Vatari guggulu

Kwatha yoga

- Rasna panchak kwatha
- Rasna saptak kwatha
- Maharasnadi kwatha
- Dashmoola kwatha
- Shattyadi kwatha
- Poonarnavadi kashaya

Choorna yoga

- Pathyaadi choorna
- Panchakola choorna
- Panchasama choorna
- Ajamodadi choorna

Lepa in Amavata

- Dasanga lepa
- Himsradi lepa

Taila

- ✓ Abhyantara prayogartha
- Eranda Taila
- ✓ Bahya prayogartha
- Saindhavadi taila
- Vishgarbha taila
- Panchaguna taila
- Prasarini taila

Rasayana Prayoga

- Amruta Bhallatka (Naimittik Rasayana)
- Aswagandha Rasayana

PATHYA-APATHYA

	PATHYA ²⁴	APATHYA ²⁵
AHARA	Sunthi, Jeeraka, Adraka, Saindhav, Hingu, Lasuna, Yava, Takra, Gomutra, Usnodaka, Eranda Taila etc.	Dadhi, Matsya, Guda, Dugdha, Masa, Virudha-Guru, Asatmya Bhojana, Guru Bhojana, etc.
VIHARA	Rukshyana, Swedana, Langhan (Upavasa), Chakramana, Mrudu Vyayama, Usna Bastra etc.	Vega Dharana, Ratri Jagarana, Alasya, Chinta Shoka, Meghaachhanna Akasha, etc.

DISCUSSION

Drugs like *Vatsanabha* and *Ahiphena* helps in inducing sleep and relaxing muscles, hence pain is relieved. Drugs like

Guduchi, *Nagara*, *Rasna*, *Musta*, *Pippali* and *Chitraka* help in improving *agni* and digestion of *ama*. *Guggulu* acts as *bhagnasandhankara* hence prevents the erosion of bone, osteoporosis and deformity of joints. It also acts *shothahara* hence reduces the inflammation of synovial membrane, connective tissue and ligaments of affected joints. Drugs like *Nirgundi* and *Shatapushpa* act as pain reliever. Some drugs simply by their virtue of *prabhava* act as *amavataghna*.

CONCLUSION

Amavata has been named keeping view two predominant pathological factors viz *Ama* & *Vata*. *Ama* means unripe, uncooked, immature & undigested material as a consequence of the impaired functioning of *Agni*. Description of *Amavata* seen in different ancient Ayurvedic textbook of Ayurveda but after medieval period it started dominating & nowadays it is very common dreadful disease. In our text we can clearly see that pathogenesis of *Amavata* start after formation of *Ama*. As we know autoimmune disease occur due to the harmful response of self immune system when immune system started attacking of body tissue as anticipated response against antigen/toxins or *Ama*. The inflammatory response occur in auto-immune disorders triggered by *Ama* or antigen at cellular level. Antigen or *Ama* modulate signalling at cellular levels leading to incompatible auto-immune response that damage tissues.

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