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Review Article

A CRITICAL REVIEW OF AMAVATA VIS-À-VIS RHEUMATOID ARTHRITIS

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ABSTRACT

Rheumatoid Arthritis (RA) is an auto-immune inflammatory systemic disorder which is primarily involves the synovial joints and pain, fever, stiffness is observed as cardinal feature in conventional system of medicine. The diathesis of RA is still evolving in modern medicine but it is presumed that deranged autoimmune mechanism plays a key role in the basic matrix of disease, its chronicity & progression of complications.

However, decades back *Amavata* as diseases entity described in *Ayurvedic* lexicons has close resemblance with RA of biomedical science. It is one of the common debilitating diseases of middle age group by virtue of its chronicity and implication. The onset of disease is frequent during 4th and 5th decades of life with 80% of patient developing the disease between 30 to 50 yrs of age. In due course of time RA, if not properly treated, it may lead to substantial loss of functioning and mobility along with alter the quality of life. The aetiopathology clinical symptoms & treatment modalities of RA is very near to *Amavata* of *Ayurveda*.

KEYWORDS: Rheumatoid Arthritis (RA), *Amavata*.

INTRODUCTION

Ayurveda is not only an acquisitive science, it is also philosophical science comprises tactful precision which is experienced by ancients in their life, used their judgments and insights and proved it as true. An immense knowledge of Ayurveda includes explanations about *Dinacharya* and *Ritucharya*. The crucial homeostasis of the body is maintained by trailing these principles. It explains about selection of food, the procedures to be adapted to the food, time of consumption, the way of intake, in accordance with the season the changes to be adapted both in food and the way of living. The physical activities are to be altered according the season, age and in relation to the provisions. Not only are these but also the righteous ways in the form of *Sadvrutta* elaborated. The changing lifestyle of human being by means of dietic and behaviour pattern plays a major role in the manifestation of several disorders. Thus this type of pattern may also lead to the development of the disease *Amavata*. The disease Rheumatoid Arthritis can be presented as a very similar to *Amavata*. The disease Rheumatoid Arthritis is chronic in nature and affect mostly the middle age group. It is one of the common debilitating diseases by the virtue of its chronicity and implication. The onset of disease is frequent during 4th and 5th decade of life with 80% of patients developing the disease between 30 to 50 years of age. Community prevalence study shows that females are more sufferer than male and the ratio of occurrence between them is 3:1. It is also noted that frequency is often associated with remission of the disease in last trimester with subsequent relapse after delivery. The spectrum of disease that result due to *Ama* ranges from acute condition like *Visuchika*, *Alasaka*, *Vilambika* etc. to the chronic disorder like *Amavata*, *Grahni* and *Amatisara*. In *Amavata*, *Vata* as a *Dosha* and *Ama* are chief pathogenic factor. They are contradictory in nature and thus possess difficulty in planning the line of treatment. It is mostly the disease of *Madhyama Rogamarga* and having *Chirkari Swabhava*, sometime it can also be manifested as the acute case due to their similar mode of presentation, the disease Rheumatoid Arthritis can be broadly grouped under the heading *Amavata*.

Due to wide spectrum of disease much prevalence in the society and lack of effective medicine, disease is being chosen for the study. The line of treatment described for the disease is

लघनं स्वेदनं तिक्तं दीपनानि कटुनि च ।

विरेचनं स्नेहपानं बस्तयश्चाममारुते ।

सैन्धवाद्येनानुवास्य क्षारबस्तिः प्रशस्यते ।। (चक्रदत्त आमवातचिकित्सा प्रकरण. 25/1)

It can be summarized under following caption:

1. Measure to bring Agni to normal state.

2. Measure to digest Ama.

3. Measure to eliminate vitiated *Vata* and Ama.

A critical review of the history from the primitive stage to the present advanced high tech world assists one to pave the pathway for future. Men always struggled with present and attempted for better tomorrow and these can be achieved with a better perspective when the errors of the past and difficulties of the present experiences are overcome, checked and planned at proper time. The knowledge of the ancient helps in having a better future, so here an attempt has been made to explore the past literature to explain the historical aspects of the *Amavata*. Following are some important historical references explained in different 'Vedic' and in Ayurvedic literature regarding *Amavata*.

VEDIC KALA (5000B.C.- 800B.C.)

Vedas are considered to be the oldest document of literature in the world. These are-

- Rigveda
- Yajurveda
- *Samveda*
- Atharvaveda

Ayurveda is a part of "*Atharvaveda*".

***Rigaveda* (1500 BC):** The word Ama has been used in various forms like '*Amayath*' and '*Amaytham*'⁽ⁱ⁾

1. Atharvaveda (1000 BC): The word '*Amaya*' and '*Amayam*' were mentioned in the sense of a disease caused by a toxic substance Ama⁽ⁱⁱ⁾. The concept of Ama and its similarity with *Visha* and its role in causing many other diseases has been discussed. *Vata Dosha* has been mentioned with five types Prana, *Samana*, *Udana*, *Vyana* and *Apana*. Only in Atharvaveda, there is reference regarding joint disorders termed as "*Sandhi Vikriti*" which is caused by *Shleshma Vikriti* and can be treated by prayers¹. Here it is clear that Ama and *Vata* have been described separately but no direct reference of the disease *Amavata* is available during Vedic period.

Samhita Kala: (800 B.C. - 600 A.D.)

***Charaka Samhita*:** In *Charaka Samhita* there is no description regarding *Amavata* as a separate disease entity. Only the passing references regarding *Amavata* are available.

1. *Charaka* has mentioned the term *Amavata* while describing the therapeutics indication of *Kansa Haritaki* in *Shvayathu Chikitsa*ⁱⁱⁱ and *Vishaladi Phanta* in *Pandu Chikitsa*^{iv}.

2. The reference of *Avarna* of *Vata* by *Ama* in *Vata Vyadhi Chikitsa* is mentioned in *Charaka* while discussing the treatment of *Avarana*^v.

3. There is detailed description of *Ama*, which is one of the pathogenic factors of *Amavata*. Its *aetiopathology*, clinical manifestation, and treatment along with *Amapardoshaja Vikara* is described in *Charaka Viman Sthana*^{vi}.

4. Treatment of *Sharirgata Ama* mentioned in *Grahani Chikitsa* is very much similar to that of the *Amavata* advocated by *Chakrapani* in *Chakradutta*^{vii}.

2. Sushruta Samhita: No reference of *Amavata* is available as a separate disease in *Sushruta Samhita*.

3. Bhela Samhita: There is also no reference of *Amavata* in *Bhela Samhita* but a complete chapter '*Atha Ama Pradoshiya Adhayaya*' is described regarding *Ama*.

The symptoms and treatment described are very much similar to that of *Amavata*^{viii}.

4. Kashayapa Samhita: No reference is found in *Kashayapa Samhita* regarding *Amavata*.

5. Harita Samhita: *Harita Samhita*, which is of doubtful origin, has explained the *Amavata* in detail with the aetiology, clinical manifestations, types, prognosis, treatment and dietary regimen. He has classified *Amavata* into following five types; *Sarvangi*, *Pakvi*, *Gulmi*, *Snehi*, *Vistambhi* and described its specific treatment^{ix}.

Sangraha Kala: (600 A.D. - 1600 A.D.)

1. Astanga Sangraha: There is no separate reference of *Amavata* in *Astanga Sangraha*.

2. Astanga Hridaya: Though there is no reference of *Amavata* as a separate disease entity in *Astanga Hridaya* but word *Amavata* has been used while discussing the therapeutic use of *Vatsakadi Yoga* and *Vyoshadi Yoga*.

3. Madhava Nidana: *Madhavakara* was the first author who has described *Amavata* as a separate disease entity in his text '*Roga Vinishchaya*' which is later known as '*Madhava Nidana*'. There is a complete chapter containing detailed description regarding aetiopathogenesis, clinical manifestations, complications and prognosis of *Amavata*^x. Later many other authors too recognized *Amavata* as a separate disease such as-

- *Vrindamadhava*: 9th Century (*Amavata Adhikara*)

- *Chakradutta*: 11th Century (*Amavata Chikitsa*)

- *Vangasena*: 12th Century (*Amavata Adhikara*)
- *Gadanigraha*: 12th Century (*Amavata Adhikara*)
- *Sharangadhara*: 13th Century (*Amavata Chikitsa*)
- *Bhavaprakasha*: 16th Century (*Amavata Adhikara*)
- *Yogaratanakara*: 17th Century (*Amavata Adhikara*)
- *Bhaishjaya Ratnavali*: 18th Century (*Amavata Adhikara*)

Among above-mentioned texts the Acharya *Chakradutta* introduced first time the line of treatment and effective drugs for the *Amavata*. Later on other authors also mentioned the same line of treatment laid down by *Chakradutta* with addition of more formulation in the form of decoction, pills, powders etc.

Adhunik Kala: (1600 A.D. Onwards)

In the modern era, Acharya *Gananatha Sena* (1943) has coined the term *Rasavata* for *Amavata*. The clinician of modern era Prof. *Yadunandan Upadhyaya* (1953) and other eminent scholars has equated the *Amavata* with Rheumatoid Arthritis. Thus in short it can be concluded that critical analysis of the medical importance of *Ama* begins from *Samhita* period, thereafter *Madhavakara* has established it as an independent disease after having understood the speciality of the disease. *Chakradutta* later on described the line of treatment and *Bhava Prakasha* elaborated it further, which can be seen fully developed in *Bhaisajyaratnavali*.

Rheumatoid Arthritis–

INTRODUCTION

Rheumatoid arthritis (RA) is a chronic inflammatory disease of unknown etiology marked by asymmetric peripheral polyarthritis. It is the most common form of chronic inflammatory arthritis and often results in joint damage and physical disability. Because it is a systemic disease, RA may result in a variety of extraarticular manifestations, including fatigue, subcutaneous nodules, lung involvement, pericarditis, peripheral neuropathy, vasculitis, and hematologic abnormalities.^{xi} (harrison)

Derivation of RA

According to modern medicine the derivation of the word given in collinns dictionary- Rheumatism is derived from the word – “Rheumatimos” a greek word designating ‘mucous’, an evil humour which flows from brain to the joints and other portion of the body, producing pain (Hollander)

- The term “Rheum” also means stiffness.
- The term Arthritis derived from – a greek word “arthros” means joint. Arthritis means inflammation of the joint.

DEFINITION OF RA –

RA is a chronic, multisystem disease of unknown aetiology. Although there are a variety of systemic manifestation, the characteristic features of RA are persistent inflammatory synovitis, usually involving peripheral joints in symmetric distribution. The potential of the synovial inflammation to cause cartilage destruction is the hallmark of the disease^{xii}. (Harrisons – principles of internal medicine)

- RA is a systemic connective tissue disorder which affects predominantly the synovial joints. Hence the term ‘rheumatoid arthritis’ (Golwalla – medicine for student)

- RA is the most common form of chronic inflammatory joint disease. In its typical form RA is a symmetrical, destructive and deforming. Poly arthritis affecting small and large synovial joints with associated systemic disturbance, a variety of extra-articular features and the presence of circulating antiglobulin antibodies (rheumatoid factors). Characteristically the course of the disease is prolonged with exacerbations and remissions forms are not uncommon. (Davidsons principle and practice of medicine 1999)

Epidemiology

Rheumatoid Arthritis is a chronic multisystem disease of unknown cause, characteristic feature of which is persistent inflammatory synovitis usually involving peripheral joints in a symmetric distribution.

Prevalence:

The prevalence of RA is approx.0.8% of the population (range 0.3to 2.1%); Women are affected approximately three times more than men. The prevalence increases with age, and sex differences diminish in the older age group. RA is seen throughout the world and affects all races. However, the incidence and severity seems to be less in rural sub-saharan Africa and in Caribbean blocks.

Age of onset:

The onset is most frequent during the fourth and fifth decades of life, with 80% of all patients developing the disease between the age of 35 and 50. The incidence of RA is more than six times as great in 60-to-64-year-old women compared to 18-to 29-year-old women.

CLASSIFICATION OF RA

According to modern medicine – RA can be classified into three types.

1. Juvenile RA – (in children)
2. Adult RA
3. Psoriatic and atypical RA

Further **on the basis of various features and factors** – RA can be classified as

(1) According to chronicity – 2 type

- (i) Type 1 – The less common form, lasts a few months at most and leaves no permanent disability.
- (ii) Type 2 – It is chronic and lasts for years, sometime for life.

(2) According to ARA criteria – 4 type

- (i) possible RA – presence of 2 criteria for 3 wks.
- (ii) probable RA – 3 or 4 criteria for atleast 6 wks.
- (iii) Definite RA – 5 or 6 criteria for atleast 6 wks.
- (iv) Classical RA – 7 or more criteria.

(3) According to Pattern of onset

- (i) Acute RA or Explosive – (10%)

- Very rapid with severe symmetrical polyarticular involvement.
- Many patients with this type of onset do surprisingly well in long.

- (ii) Palindromic RA

- Repeated attacks of acute self limiting synovitis affecting a variable number of joints.
- Inflammation develops over a few hours accompanied by erythema and swelling of affected joints, resolves within 48-32 hours leaving no residual features.
- It is usually identified by presence of RF in blood.

- (iii) Insidious RA – (70%)

Cases of RA develop insidiously over weeks or months with gradually increasing joint involvement. Progression from predominantly peripheral small joint disease to the involvement of the more proximal joints including the knee and hips.

- (iv) Systemic RA -

- It is usually seen in middle aged man.
- No articular features dominate, i.e. fever, myalgia, weight loss, anemia, pleural effusion and vasculitis lesion may occur.
- RF usually present with high titre.

(4) According to number of joints involved

- (i) Mono – articular RA
- (ii) Oligo – articular RA
- (iii) Poly – articular RA

(5) According to Radiological changes

(i) Erosive RA

(ii) Non-Erosive RA

(6) According to RA factor

(i) Seropositive RA

(ii) Seronegative RA

(7) According to presence of Rheumatoid nodules

(i) Nodular RA

(ii) Non- nodular RA

Clinical features-

The typical presentation is with pain, joint swelling and stiffness affecting the small joints of the hands, feet and wrists. Large joint involvement, systemic symptoms and extra-articular features may also occur. although it should be noted that these were designed for epidemiological studies rather than for the diagnosis of individual patients. By convention, symptoms need to have persisted for more than 6 weeks for the diagnosis of RA.(Davidson)

Criteria for diagnosis of rheumatoid Arthritis^{xiii} Diagnosis of RA is made with four or more of the following:

- Morning stiffness (> 1 hr) • Rheumatoid nodules • Arthritis of three or more joint areas
- Rheumatoid factor • Radiological changes • Arthritis of hand joints • Duration \geq 6 wks
- Symmetrical arthritis

(American Rheumatism Association 1988 revision.)

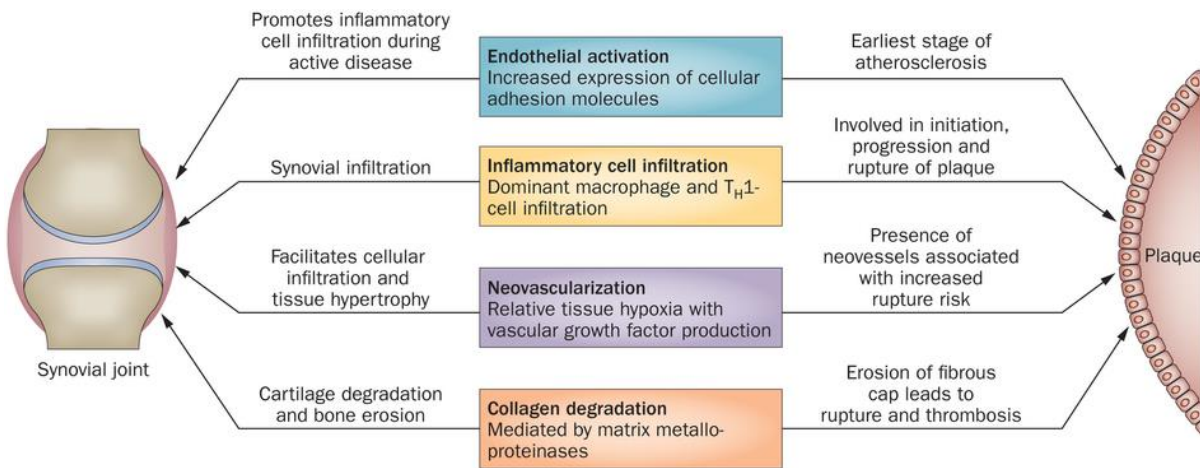
Investigations and monitoring of rheumatoid arthritis: To establish diagnosis

- Clinical criteria
- Acute phase response (APR)
- Serological tests
- X-rays -To monitor disease activity and drug efficacy
- Pain (visual analogue scale)
- Early morning stiffness(minutes)
- Joint tenderness

- Joint swelling
- DAS 28 score
- APR-To monitor disease damage
- X-rays • Functional assessment -To monitor drug safety
- Urinalysis
- Biochemistry
- Haematology



<https://medlineplus.gov/e>



Nature Reviews | Rheumatology

<http://www.nature.com>

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<http://images.slideplayer.com/>

1. Rheumatoid arthritis - bone erosion



<http://images.slideplayer.com>

Conclusion:

The Rheumatoid arthritis, none the less should be considered under the same heading '*Amvata*' because most of the characteristic features and severity of both are same .

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