

Volume 12, Issue 11, 146-152.

<u>Review Article</u>

ISSN 2277-7105

A REVIEW OF AMAVATA W.S.R. TO RHEUMATOID ARTHRITIS

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Article Received on 03 May 2023,

Revised on 24 May 2023, Accepted on 14 June 2023 DOI: 10.20959/wjpr202311-28667

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ABSTRACT

Now-a-days erroneous dietary habits, lifestyle and environment have led to various autoimmune disorders i.e., Amavishajanya vikaras and Amavata is one among them. Treating or managing Amavata /Rheumatoid Arthritis (RA) is a challenge for both modern & Ayurvedic physicians. Rheumatoid arthritis has become a leading cause of disability. According to the arthritis foundation of USA, RA is the second most common type of arthritis and widely prevalent throughout the world. In India the prevalence has been estimated 0.75%, projected to the whole population, this would give a total of about seven million patients in India.^[1] Onset of RA is most frequent during middle age and women are affected approximately more than 3 times more often than men.^[2] In this article we are going to describe a complete literary review of Amavata w.s.r. to Rheumatoid Arthritis.

KEYWORDS: Ayurveda, Ama, Agni, Amavata, Rheumatoid Arthritis.

INTRODUCTION

According to Ayurvedic literature, the pathology of Amavata starts with long term incidence of Mandagni in body which leads to the formation of Ama. This Ama gets mixed with vitiated Vata and enters the joints leading to the stiffness of the joints, such condition is known as Amavata. Modern science states that RA is a chronic multisystem disease of unknown cause. Although there is a variety of systemic manifestations, the characteristic feature of RA is persistent inflammatory synovitis, usually involving peripheral joints in a systemic distribution. The potential of synovial inflammation to cause cartilage destruction and bone erosions with subsequent changes in joint integrity is the hallmark of the disease. Despite of its destructive potential, the course of RA can be quite variable.^[3] RA usually involves peripheral joints in a systemic distribution, where synovial membrane becomes inflamed. Pathogenesis includes synovitis, synovial cell hyperplasia, hypertrophy with CD4 lymphocytic infiltration, synovial effusion, pannus formation, cartilage loss, fibrosis, bony erosion, deformity, fibrous and bony ankylosis, muscle wasting, periarticular osteoporosis and results in both articular and extraarticular manifestations. Course of the disease is variable. It can be slowly progressive with oligoarthritis or rapidly progressive erosive arthritis with marked deformity with downhill course. Even with the use of NSAID (Non-Steroidal Anti-Inflammatory Drugs), glucocorticoids, DMARD s (Disease Modifying Anti Rheumatic Drugs), treatment does not provide a complete cure and have their own side effects.

OBJECTIVES

To study the aetiopathogenesis, signs, symptoms and treatment of Amavata W.S.R. to Rheumatoid Arthritis.

MATERIAL AND METHOD

For this literary article, the references of Amavata and Rheumatoid Arthritis has been collected from Ayurvedic, modern texts, research articles, publications available on net except citations and patents.

Hetu^[4]

As per Ayurvedic texts, consumption of incompatible food, improper physical activities, low digestive fire, sedentary lifestyle, and physical activities after having meal causes the disturbance in Tridosha which results in Amavata.^[1]

- Viruddha Ahara (Incompatible food): The food that provokes the Doshas but does not expel them out of the body is called Viruddha. Viruddha Ahara plays important role in causing Ama. Ex. Mixing of milk with fish in a diet.
- 2) Viruddha Cheshta (Improper physical activity): The physical activity performed without following the procedure is called Viruddha Cheshta.
- 3) Mandagni (Decreased digestive power): Amavata is produced due to Mandagni.
- Nischalata (Lack of physical activity): Lack of physical activity or sedentary life style is the main cause of accumulation of Ama in the body.
- 5) Snigndham Bhuktavato Vyayamam: Performing physical exercise soon after intake of heavy food causes formation of Ama in the body.

Samprapti of Amavata^[5] (etiopathogenesis)

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The produced Ama due to Mandagni and vitiated Vata dosha due to above mentioned etiological factors are the main causes of Amavata. These two simultaneously enters the Trik region & other sandhi (joints) and causes stiffness and pain, resulting in Amavata.

According to modern concept, in researches of recent years; it has become evident that RA arises based on genetic and epigenetic components, but also the environment must play an important role such as cigarette smoke, dust exposure and especially the microbiome that also represents an "internal" environment. There appears to be an important between the components of the adaptive immune system and the innate immune system. Abnormalities in the cellular and humoral immune response lead to the occurrence of autoantibodies, most notably rheumatoid factors (RF) and antibodies against post translationally modified proteins [anti-modified protein antibodies (AMPA)].^[6]

Cardinal features of Amavata

In Ayurveda it is described that cardinal features of Amavata⁷ includes Angamarda (Body ache), Aruchi (anorexia), Trisha (thirsty), Gaurav (heaviness in the body), Aalasya (Lethargy), Anga-shunata (Swelling in the body), Jwara (Pyrexia), Apaki (Indigestion).

The disease is very difficult to cure when established. Whenever there is accumulation of dosha or Ama, that particular area is painfully oedematous. The pain resembles that of scorpion sting. Bony joints of shoulder, forearm, foot, cervical area, ankle, Sacro-coccygeal area, knee and pelvis are swollen and are painful. Lowered digestive fire, excess salivation, distaste, heaviness, loss of enthusiasm, perception of different tastes, burning sensation, polyurea, rigid abdomen, colicky pain, sleep reversal, thirst, vomiting, vertigo, fainting, rigid chest, constipation, sluggish intestinal motility, borborygmus, and abdominal distention are observed.

According to modern texts^[8], sign and symptoms of RA are divided into articular and extraarticular manifestations. Under articular manifestation; pain, swelling and tenderness may be poorly localized to the joints. Pain in affected joints may be affected by movement, is the most common manifestation of established RA. It corresponds in pattern to the joint involvement but does not always correlate with the degree of the apparent inflammation. Generalized stiffness is frequent and is usually greatest after periods of inactivity. Morning stiffness of greater than one hour duration is an almost invariable feature of inflammatory arthritis may serve to distinguish it from various noninflammatory joint disorders. Extraarticular manifestations occur in individuals with high titres of antibodies to the Fc component of immunoglobulin G (rheumatoid factors).

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, suggest the possibility of R.A.

ACR & EULAR classification Criteria (2010)^[9] for Diagnosis

- 1) Morning stiffness (>one hour)
- 2) Arthritis of 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)

Table 1: Diagnosis of R.A. (ACR & EULAR classification Criteria (2010).

JOINT INVOLMENT	SCORE
One large joint (shoulder, elbow, hip knee, ankle)	0
Two to ten large joints	1
One to three small joints (MCP, PIP, thumb IP, MTP, wrists)	2
Four to ten small joints	3
>10 joints	5
SEROLOGY	
Negative RF and anti CCP	0
Low positive RF and anti CCP (antibodies≤3 times upper limit of normal)	2
High positive RF or anti CCP antibodies (>3 times upper limit of normal)	3
ACUTE PHASE REACTANTS	
Normal CRP & ESR	0
Abnormal CRP & ESR	1
DURATION OF SYMPTOMS	
< Six weeks	0
\geq Six weeks	1

Total score of ≥ 6 is indicative of definite Rheumatoid arthritis.

Investigations

CBC, E.S.R, R.A. factor - Quantitative & Qualitative, CRP, ASO Titre, ANTI CCP antibody, ANA, HLA B27, V.D.R.L, RBS are done.

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Imaging tests

X ray (shows soft tissue swelling, juxta articular osteopenia & decreased joint space) and MRI (MRI has more accuracy and sensitivity in detecting bone erosion, synovitis, subluxation, or complete carpel destruction) are used.

Prognosis of Amavata^[10]

The management of Amavata is very difficult because the Ama and Vata have properties opposite to each other. So, the disease involving single dosha and early onset is easy to cure but the disease consisting of two doshas are Yapya and chronic disease involving multiple joints with systemic complications are difficult to treat.

Management of Amavata^[11]

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 done locally on affected joints. In Amavata Rooksha Sweda is recommended (Sudation without oil/fat). For the procedure of Rooksha Sweda Baluka (sand) is recommended. Snehana is contraindicated in Amavata.

3) Katu, Tikta, Pachak-aahar & Aushadhi

The drug which possesses Katu (pungent), Tikta (bitter) rasa and which act as Deepana-Pachana, are recommended in Amavata.

4) Virechana

For Virechana, Eranda Taila and Haritaki are used. In Amavata without any preoperative procedure Virechana is recommended directly. Eranda acts as Sroto-Shodhaka, Shothahara, Shoolahara and Amavatahara.

5) Basti Chikitsa

Chakradutta recommends kshara Basti and Anuvasana Basti in Amavata.

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6) Shaman Aushadhi

Rasna Panchak kwatha, Shatapushpadi Lepa, Simhanada Guggulu, Rasna Saptak kwatha, Yogaraja Guggulu, Shiva Guggulu, Nagar Choorna, Nagar Ghrita, Amrita Ghrita, Alambushadi Choorna, Prasarini Taila, Amavatari vajra rasa, Amavatari Rasa, Alambushadi Choorna and Ras-Sindoor etc are given as Shaman Aushadhi to treat Amavata.

Modern approach includes NSAIDS, Steroid, Disease modifying antirheumatic drugs (DMARDs) and surgery of joint replacement by prosthesis in terminally damaged joint.

CONCLUSION

The drug used in modern medicines like NSAIDs have gastrointestinal side effects. Similarly, DMARDs cause renal, hepatic and marrow suppression. On the contrary Ayurvedic treatment regimen which includes oral intake of Ayurvedic drugs, Panchakarma procedures, dietary changes and lifestyle modifications treats the root cause of the disease without doing any kind of side effects.

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