

## EVALUATION OF STRUCTURAL CHANGES IN PARVASANDHI IN AMAVATA

**Priyanka Dilip Jadhav\*<sup>1</sup> and Nitin. S. Chandurkar<sup>2</sup>**

<sup>1</sup>P.G. Scholar, Rachana Sharir Department, Dr.D.Y. Patil College of Ayurveda & RC, Pimpri, Pune.

<sup>2</sup>Professor and HOD, Rachana Sharir Department, Dr.D.Y. Patil College of Ayurveda & RC, Pimpri, Pune.

Article Received on  
15 June 2020,

Revised on 06 July 2020,  
Accepted on 27 July 2020,

DOI: 10.20959/wjpr20208-18315

### \*Corresponding Author

**Dr. Priyanka Dilip Jadhav**

P.G. Scholar, Rachana Sharir  
Department, Dr.D.Y. Patil  
College of Ayurveda & RC,  
Pimpri, Pune.

### ABSTRACT

In Ayurveda Amavata was first described by Madhav Nidan. According to Modern Science Amavata is correlated with Rheumatoid Arthritis. Rheumatoid Arthritis commonly occurs in joints. With time, multiple joints are affected. Most commonly involved joints are the small joints of the hand in which most frequently Interphalangeal joints (Parva sandhi) like PIP (Proximal Interphalangeal Joints) and MCP (Metacarpophalangeal Joints) of wrist and small joints of feet are also involved. In Amavata, according to modern science common joint deformities seen are Boutonniere deformity, Swan-neck deformity, Z-thumb deformity, Claw toe deformity which in Ayurveda is commonly termed as hasta/pada vakrata. So as to prevent the deformity in Hands

and feet due to Amavata (Rheumatoid Arthritis) it is necessary to study the structural changes and deformities for the awareness purpose.

**KEYWORDS:** Amavata, Parva sandhi, small joints of wrist and feet, Deformity, Rheumatoid Arthritis.

### INTRODUCTION

According to Madhav Nidan, Amavata is a disease developed due to changed lifestyles and improper food habits. Nowadays due to fast lifestyle, people eat improper foods, incompatible food (junk and oily food, virudha ahara), lack of physical activity, decreased digestive power, Performing physical exercise soon after intake of heavy food causes Ama in the body. It is very difficult to elicit the exact cause of Amavata. These kind of

hetu's(etiology) lead to Amavata disease. Amavata is disease of Rasavaha strotasa it is generally compared with Rheumatoid Arthritis. Amavata is the outcome of Agnidushti, Amotpatti and Sandhivikruti. Amavata affects all joints. But most commonly affected joints are joints of hands, wrists and phalangeal joints. When Amavata is jirna i.e. chronic it mostly develops deformity of phalangeal joints which in turns result in restricted movements of fingers. Because of phalangeal deformities the person is unable to write or hold the things with the help of thumb or fingers and requires the other person to carry out his daily routine work like writing, typing etc.it develops painful and restricted sort of movements in phalanges, So it is essential to study the changes taking place in parva sandhi (interphalangeal joints).

It will help us to create awareness and prevent from structural deformities taking place. With the help of required treatment, exercise, food habits, lifestyle management according to changes taking place in parva sandhi, goal of staying healthy and fit will be achieved. Ayurveda and modern literature have given the evidences regarding the deformities developed as a result of Amavata. A lot of researches have been conducted on this disease. But a few have focused on the anatomical changes and the structural deformities of the affected joints. The careful observation and evaluation of these changes will be a land mark in the medical field for the treatment of this disease. Hence the present study is chosen. 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 peoples in society are unaware about disease and its complications which is responsible for lifelong joint deformities.

## MATERIAL AND METHODS

1. Data is collected from Bruhathrayees, Laghuthrayees, other classical texts, journals along with details related to the topic from modern science, which is reviewed and discussed scientifically.
2. Participants who are diagnosed as amavata according to symptoms are selected, complaints related interphalangeal joints of hands and feet are examined.
3. Clinical examination is performed.
4. The data is recorded in special case perfoma prepared based on signs and symptoms of amavata.
5. Structural changes are observed with help of x ray.

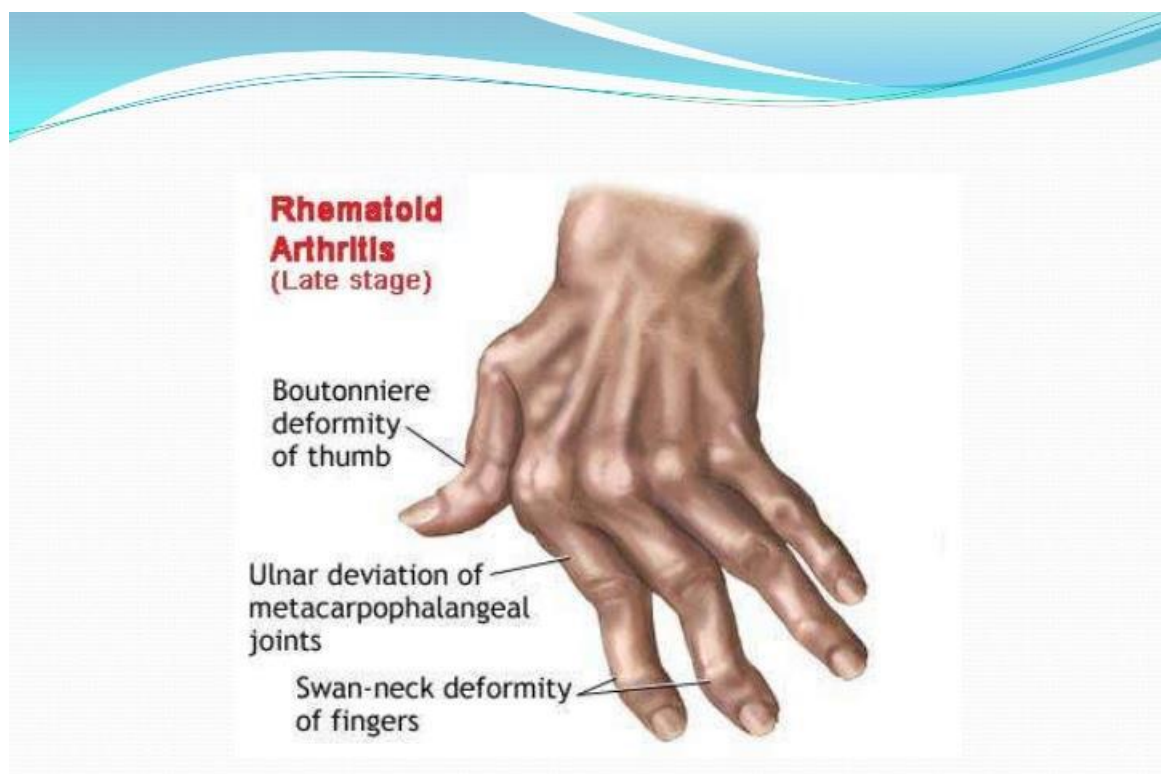
6. Conclusion is drawn accordingly.

## RESULTS

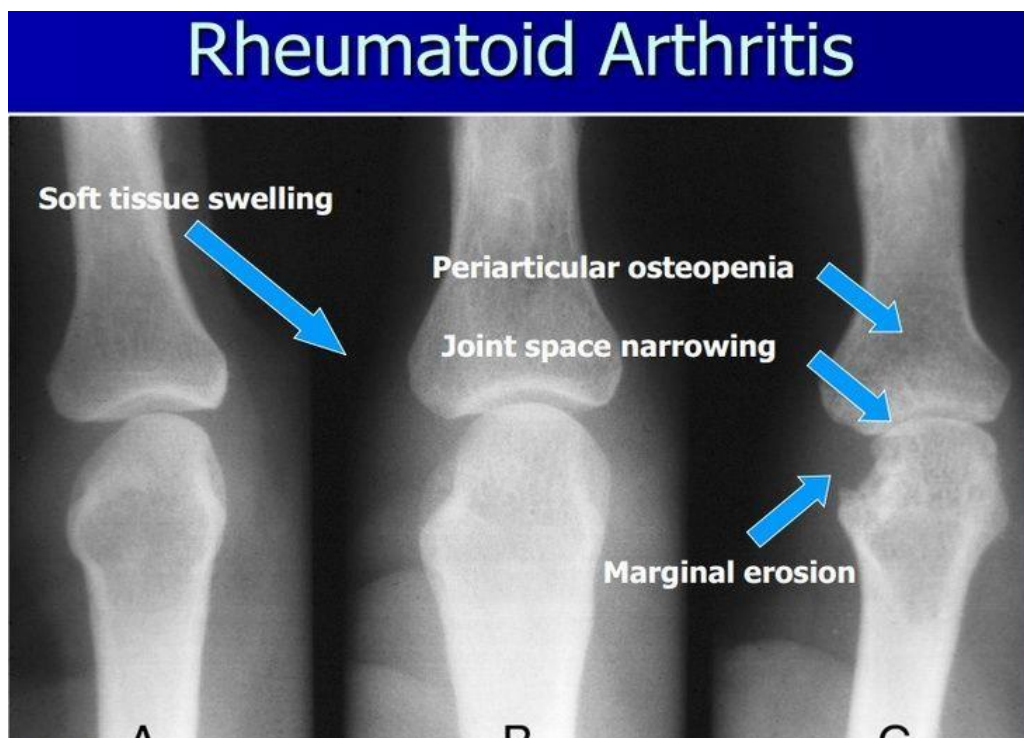
Changes in parva sandhi are observed in radiography and correlated with the anatomical structures.

Some of deformities related to rheumatoid arthritis due to chronicity are given below that are observed:

- 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 occur at metacarpophalangeal joint.
- 5) Hammertoe deformity
- 6) Claw toe deformity.
- 7) Hallux valgus



Some early changes in x ray study are noted like osteoporosis, joint space narrowing, marginal erosion predilection for PIP and MTP joints.



## DISCUSSION

Acharya Madhavakar first time explained regarding the Amavata. It is a disease in which vitiation of Vata Dosha take place and there is accumulation of Ama take place in the different joints, which simulate rheumatoid arthritis (RA). This Ama gets localized in the body tissue and circulate in joints, it further leads to develop symptoms like pain, stiffness, swelling, tenderness, etc., in the related joints. The Ama which plays an important role in the joint disease associating itself with vata, moves quickly to the different sites of kapha in the body and accumulates them along the dhamanis (Blood vessels) this blocks the tissue pores and passages. Hence it effects the heart and joints etc. when vitiated doshas are severe then these effects the joints like, Gulpha, Jaanu, Trika, Parva etc. The features of Amavata are similar to rheumatoid arthritis, an autoimmune disorder which causes chronic inflammatory and symmetrical polyarthritis.

### Anatomical Changes in Rheumatoid arthritis

Rheumatoid arthritis (RA) condition is progress in three stage; in first stage there is swelling of synovial lining, pain in joints, warmth, stiffness, swelling around the joint. In the second stage there is a rapid division and growth of cell, which cause the synovium to thicken in joints sometimes along with fever. Last stage the inflamed cell releases the enzyme that may digest bone and cartilage and causing the involved joint to lose its shape and alignment, more pain and loss of movement. It is a systemic inflammatory condition that results in cartilage

and bone destruction. It is characterized by a characteristic outline and distribution of synovial joint involvement. Inefficiency of the joint leads to deformities and loss of function which then results in the quality of life. In the hands, the metacarpophalangeal (MCP), proximal interphalangeal (PIP), and thumb interphalangeal (IP) joints are most frequently involved. The distal interphalangeal (DIP) joints are involved only in the presence of a coexisting MCP or PIP disease. Tenosynovitis of the flexor tendons causes a reduction in finger flexion and grip strength. Nodular thickening in the tendon sheath may also produce a trigger finger.

## CONCLUSION

Rheumatoid arthritis is the common form of articular disorder commonly infected joints mainly Gulpha, Manibandha sandhi, parvasandhi. The Ama produced due to vitiation of dosha get circulated in various joints associating with vata, moves quickly to the different joints in the body. Rheumatoid arthritis can be correlated with Amavata as per the etiology, sign and symptoms. With appropriate diagnosis and treatment, attempt should be made to prevent Anatomical Changes in Gulpha, Manibandha sandhi, parvasandhi to avoid excessive impact on the quality of the life of an individual. Lifestyle management will be done with proper dietary habits, proper physical exercise, proper digestion and other supportive treatment will be given as early as the changes will be noted. Notification of early anatomical changes will prevent further deformities and proper treatment with lifestyle management will be advised.

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