

## **AN OBSERVATIONAL STUDY ON VYADHIAVASTHAS OF AMAVATA**

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DOI: <https://doi.org/10.47071/pijar.2020.v05i05.018>

### **ABSTRACT**

Amavata is formed by two words, Ama and Vata. Ama means incomplete digestion of food which results in incomplete formation Annarasa, which circulate in body and reaches to target cell where it produces symptoms like heaviness in the body, drowsiness, loss of strength, anorexia, vitiation of Vata, incomplete digestion of food, thirst and fever are the symptoms of Ama. When it involves the joints it will represents pain, stiffness and swellings in the joints of ankle, hand, wrist, knee and feet. Nidanās of Amavata mentioned in Ayurveda are Viruddhahara, Viruddhachest, Mandagni. And even explained the Vyadhiavasthas like Samanya-Pravruddha, Sama-Nirama. Most frequently advised investigations in the Amavata are ESR and RA factors. So, understanding of ESR and RA Factors in respective to Vyadhiavasthas helps in prognosis and treatment of the disease.

**OBJECTIVES:** To conduct an observational study on etiology and pathogenesis of Amavata and Vyadhiavastha of Amavata. **METHODS :** A minimum of 100 patients who were suffering from Amavata between age group of 16-60 years with the help of special case Proforma with the details of history taking, physical signs and symptoms as mentioned in our classics and allied science were selected.

Patients were analyzed and selected accordingly who fulfills the diagnostic and inclusion criteria. Vyadhiavasthas were assessed statistically on the basis of Lakshanas of Amavata in relation with ESR and RA Factor. **RESULTS :** ESR in relation with Sama avastha is statistically significant with the parameters of Amavata.

**KEYWORDS:** Amavata , Samanya-pravruddha, Sama-Nirama, Rheumatoid arthritis, ESR, RA Factor

### **INTRODUCTION**

Now a day's most of dietary habits, life style and environment have been changing and Amavata in large scale is outcome of this modification. Amavata is one of the challenging diseases for the clinician due to chronicity,

incurability, complications and morbidity.

Term Amavata has been used at several places by Acharya Charaka. Acharya Vagbhata while describing Sama Dosas, has told the lakshanas of

Sama Vata. It was Acharya Madhava to describe the disease in detail as a separate chapter for the first time. Though Acharya Harita also contributed a lot especially by categorizing it into 6 types. Acharya Vrunda followed Acharya Madhava and contributed to the treatment aspects. Later on other Acharyas followed Madhava and Vrunda.

Amavata is one among Rasa vikara, where there is involvement of Ama and Vata dosha. The word Ama means unripe food stuff also Anna Rasa which is not found up to level of the Dhatu i.e. Apachit dhatu. Vata is one of the major Dosha. This vitiated Ama and aggravated Vata dislodges into the joints which leads Amavata Roga. Signs and symptoms of Amavata are mainly related to Ama, Srotorodha and Vata vitiation.

It is characterised by Sandishotha, Sandishoola and Sthabdata. It is a debilitating disease which is crippling in nature which makes the man dependent by producing deformities.

Madhava explained under the category of Vata kaphaja vyadhis. Nidanans of Amavata narrated by Madhavakara are Viruddhahara, Viruddhachesta,

Mandagni and Exercise after Snigdharahar etc.

It is equated to Rheumatoid arthritis, a chronic systemic, inflammatory, non-suppurative synovitis that progress to destruction of articular cartilage with a symmetrical distribution of peripheral joints. About 1% of world population suffers with Rheumatoid arthritis often, women 3-5 times afflicted than men. However people of any age group affecting by this disease.<sup>1</sup>

Rheumatoid arthritis is a autoimmune disease and insidious onset with fatigue, anorexia, weakness, and acute onset with rapid development of polyarthritis with symptoms like fever, lymphadenopathy and splenomegaly. Joint involvement is usually symmetrical.

Rheumatoid arthritis is characterised by pain, swelling, tenderness and stiffness of the joint with limited movements. Generalised stiffness may occur but morning stiffness lasting for more than a hour is important symptoms in Rheumatoid arthritis.

Joints mainly affected are metacarpophalangeal and proximal inter phalangeal joints of the hand, wrist, knee and metatarsophalangeal

and proximal inter phalangeal joints of the feet.

When Dosa-Ddusya sammurchana takes place leading to the formation of a disease, it follows a path of onset, duration and progression. In the period of duration of disease, different stages appear due to several factors and they are called stages of disease or Vyadhiavastha.

The specific condition or stage of disease process is Vyadhiavasta. Dosh, Dushya, Agnimandya, Ama and Srotorodha are contributing factors of Vyadhiavastha. When a person involves in certain causative factors like Viruddha ahara, Snigdhanna bhojana and many other things, the occurred Dosh-Dushya Samurcchana leads to disease Amavata. This may be at different stages in different individuals.<sup>2</sup>The factors like Dusya, Desha, Bala, Kala, Anala, Prakruti, Vaya, Satva, Satmya and Ahara may favor either of these sides.<sup>3</sup>

The knowledge of Vyadhiavasta plays an valuable role in the Diagnosis, Prognosis, Determination of Vyadhikshamatva, Treatment of disease and advice for diet. Therefore physician, patient and attendants must observe the changes seen in

Vyadhiavasthas. Samanya-pravruddha and Sama-Nirama Avasthas mainly represents the symptoms of Amavata.

Erythrocyte sedimentation rate at which RBC'S sediments. ESR is increased in cases of tissue breakdown or when foreign protein enters the blood.

Quantitative estimation of RA factor by latex agglutination method. RA factor useful to diagnose the rheumatoid arthritis.<sup>4</sup>

Hence this study is made to understand the etiological factors, different stages of Amavata like Samanya-Pravruddha, Sama-Nirama and evaluation of Erythrocyte sedimentation rate and Rheumatoid arthritis factor changes in reference to above said Vyadhiavasthas.

#### **OBJECTIVES OF THE STUDY**

An observational study on etiology and Pathogenesis of Amavata.

To evaluate the Vyadhiavasthas of Amavata i.e Samanya-Pravruddha, Sama-Nirama in relation to Rheumatoid arthritis

#### **SAMPLE SIZE ESTIMATION**

It is a clinical observational study of minimum of 100 patients who are suffering from Amavata between age group of 16-70 years with the help of

special case Proforma with the details of history taking, physical signs and symptoms as mentioned in our classics and allied sciences were selected.

**STUDY DESIGN:**

It's a clinical observational study of 100 patients of either sex diagnosed as Amavata based on clinical features. Patients were subjected for investigations like Erythrocyte sedimentation rate and Rheumatoid arthritis Factor.

**STATISTICAL ANALYSIS OF THE RESULT**

The results having p value less than < 0.05 is considered as statistically significant in this study and the statistical parameters used is t- test.

**INCLUSION CRITERIA:**

1. Patient aged between 16-70 yr .
2. Who fulfils the diagnostic criteria.

**EXCLUSION CRITERIA:**

1. Rheumatoid arthritis associated with any other systemic illness.
2. Patients with other arthritis like Gouty arthritis, Psoriasis arthritis, Tubercular arthritis etc.
3. Pregnant women.

**Observation and results**

Considering the Vyadhiavasthas and ESR, the following parameters found.

P Value of Sandhishoola, Sandhishootha, Aruchi, Gourava, Alasya, Apaka, Malamutravibanda, Agnisada, Nirvibanda, Kshuth, Absence of Antrakujana, Alpavedana, Agnidourbalya, Praseka, Utshahani, Vairasaya, Vrischika damshavat vedana, Nidraviparyaya, Chardi, Hrad graham, Jadya and ESR found P<0.001 very highly significant.

P Value of Jwara, Antrakoojana, Kukshikatinatashoola And ESR found highly significant.

P Value of Nistoda, Daha, Kukshikatinata, Vitvibanda, Anaha and ESR found significant.

P Value of Sandhistabdata, Angamarda, Trushna, Tandra, Bahumutrata, Bhrama, Murcha, Raga, Sthaimithya, Kandu and ESR found insignificant.

Considering the Vyadhiavasthas and RA Factor, the following parameters found.

P Value of Sandhishoola, Sandhishootha, Aruchi, Gourava, Agnisada, Nirvibanda, Kshuth, Absence of Antrakujana, Alpavedana, Agnidourbalya and RA Factor found P<0.001 very highly significant.

P Value of Alasya, Apaka, Jadya And RA Factor found highly significant.

P Value of Jwara, Vitvibanda, Malamutravibanda and RA Factor found significant.

P Value of Sandhistabdata, Angamarda, Trushna, Praseka, Utshahani, Vairasya, Daha, Kukshikatinata, Nidraviparyaya, Chardi, Hradgrah, Antrakujana, Anaha, Kukshikatinata, Nistoda, Tandra, Bahumutrata, Bhrama, Murcha, Raga, Sthaimithya, Kandu and RA Factor found insignificant.

### Discussion

**Age:** In this study maximum were belongs to 40-70(74%) age group. In this age group due to busy life and indulge in Mithyavarivihara, Viruddhahara. It may lead to vitiation of the Doshas. Thus people in this age group are more prone to get affected by diseases caused due to derangement of Agni.

**Gender:** Maximum number of patients was females (66%). According to modern science females are 3-5 times afflicted than men.

It may be due to responsibility of the house hold work and family stress, which vitiate the Vata than vitiates the Agni and leads to Ama formation.

**Religion:** Maximum patients belong to Hindu religion (85%). This may not be

due to any particular reason, because of Hindu dominated population in the area.

**Sandhishoola:** Almost all the patients showed the joint pain (99%). The vitiated Vata carries the Ama to the Kaphasthana like Sandhi and produces the distress in the Sandhis.

Inflammation makes the joint lining thicker and gives rise to production of extra cellular fluid. Both of these factors put pressure on the joint capsule and irritate the nerve ending, presenting with joint pain.

**Sandhishootha:** Maximum patients had the symptom of inflammation in the joints (71%). The vitiated Kapha and Ama will obstruct the Vata, which give rise to Vimarga gamana of Vata and produces Shootha.

Activated B cells releases the IgM antibody against IgG. These two antibodies IgM and IgG immune complexes trigger the inflammatory damage to the synovium. Activated endothelial cells express the adhesion molecules, which stimulate the collection of inflammatory cells. Hence results in the accumulation synovial fluid, hypertrophy of synovium and thickening of joint capsule.

**Sandhistabdata:** Almost all the patients presented with stiffness of the joint (94%). Due to the Sheeta and Ruksha guna of the Vata. The vitiated Ama and Vata will get aggravated simultaneously and enters into the Sandhi pradesha and leads to the Stabdata.

Pain and inflammation accompany joint stiffness. Morning stiffness in RA is not fully understood, but there is a chain reaction like; Joint inflammation causes swelling in the joint, which increases when joint is immobile. This results due to limited mobility and tightening of muscles around the joint. Which gradually get reduced by evening. This may be due to the diurnal variation in plasma cortisol level.

**Angamarda:** Maximum patients presented with the body ache (82%). Pain is mainly due the vitiation of Vata. Pain is the cardinal symptom of the inflammation.

**Gourava, Alasya, Apaka and Malamutravibanda:** Most of the patients had the heaviness of the body (59%) Alasya (43%), Apaka (43%) and Malamutravibanda (34%). These are the Samanya lakshanas of the Ama. The vitiated Ama will do the

Srotorodha and produces these symptoms.

The cytokine chemical presents in the inflamed tissues causes the fatigue.

Constipation and indigestion may be due to the medications.

**Agnidourbalya:** Most of the patients had Agnidourbalya (55%). Due to Kaphakara ahara Vihara the vitiated Doshā will depress the digestive fire and become difficult to digest the Ahararasa leading to the formation of Ama.

**Nistoda:** Most of the patients had symptom of Nistoda (42%). Vata is vitiated in the amavata. And it has the quality of producing severe pricking type of pain. This is the type of pain specially produced by the Vata dosha.

**Nirvibanda, Kshuth, Absence of Antrakoojana and Alpavedana:**

Due to treatment history, some of the patients showed the symptoms like Nirvibanda, Kshuth, Absence of Antrakoojana and Alpa vedana. Because patients were on medications and Deepana-pachana action subsides the Ama and presents with Nirvibanda, Kshuth, and absence of Antrakoojana. Reason for presence of more symptoms in some cases and few in

others could be the severity and chronicity of the disease.

**Discussion on ESR:** Increased ESR is due to the acute reaction, which is due to the increased concentration of plasma protein. The fibrinogen overcomes the repulsive forces of erythrocytes and forms rouleaux formation. These rouleaux formations will increase the RBCs weight and increase the sedimentation rate. The sedimentation rate is a rough measurement of abnormal concentration of fibrinogen and serum globulin.

So the raised ESR can be taken as Dhatugatamalasanchaya due to Ama in the Rasa and Rakta. The Snigdha and Picchila gunas of Ama helps in the rouleaux formation. The Guru guna of Ama will increase the ESR during Amavastha.

**Discussion RA Factor:** Rheumatoid factors are the proteins produced by the immune system. These proteins can be taken as Malasanchayirupa Ama.

### CONCLUSION

In this study among two Vyadhiavasthas like Samanya-Pravruddha, Sama-Nirama, Most of the

patients belong to the Samanya and Sama Vyadhiavastha.

Among Samanya lakshanas of Amavata Sandhishoola, Sandhishootha, Sandistabdata, Angamarda, Aruchi, Alasya, Gourava and Apaka seen in almost all the cases

Among pravruddha avastha of Amavata Sandhiruja, Agnidourbalya, Utshahani, Vairasya, Nidraviparyaya and Jadya is seen in the maximum cases.

Among Samavastha of Amavata Agnisada, Sthamba, Angavedana and Shotha is seen in almost all cases.

All most all cases showed Vatakaphaja lakshana and it shows that Pitta has fewer roles in pathogenesis of Amavata.

Amavata is an inflammatory polyarthritis. Almost all had polyarthritis, among them Ankle, Hand joint has affected first.

Aharaja nidana got the significant role in causative factors of Amavata. More than 50% of patients indulge in the Atimatra, Viruddha ahara, Vishamashana, Kandashaka and excessive use of Madhura rasa, Guru, Snigdha and Sheeta guna ahara in

their diet. Majority were Non-vegetarian.

ESR was highly significant in the symptoms like Sandhishoola, Sandhishootha, Aruchi, Gourava, Alasya, Apaka, Malamutravibanda, Agnisada, Nirvibanda, Kshuth, Absence of Antrakujana, Alpavedana, Agnidourbalya, Praseka, Utshahani, Vairasaya, Vrischika damshavat vedana, Nidraviparyaya, Chardi, Hrad graham, Jadya.

RA Factor was highly significant in the symptoms like Sandhishoola, Sandhishootha, Aruchi, Gourava,

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Agnisada, Nirvibanda, Kshuth, Absence of Antrakujana, Alpavedana, Agnidourbalya.

ESR showed highly elevated in Samavastha and normal in the Nirama avastha.

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### Published BY:

Shri PrasannaVithala Education and Charitable Trust (Reg)

Source of Support: NIL

Conflict of Interest: None declared