



## Implication of Rheumatoid Factors In Amavata

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### ABSTRACT

*The discussion on Amavata amongst the healthcare providers has gained paramount importance, even as the best available treatment is insufficient to provide complete cure to Amavata caused by Amadosha i.e Annonya sammurchita dusta dosha, affecting all the joints. The illness is characterized by severe pain, swelling, restricted movements of the joints. In a long run leading to verities of deformities like khanja, Pangu, Khalli. Hence a definite and timely diagnosis of the disease Amavata is required. However the History, Clinical picture, Physical examination are incorporated in diagnosis, and Quantified RA Titer is utilized for its significance in Amavata. The existence of correlation between severity of Amavata and RF titer is evaluated statistically.*

**KEYWORDS :** Amavata, Rheumatoid factors, Sandhi shoola, Shotha , Amadosaha,

### Introduction:

Amavata is one of the commonest diseases among the crippling disorders, caused due to wide range of etiological factors like Viruddha aahar, viruddha chesta etc. Amavata exhibits the clinical features like Aruchi, Trishna, Bahumutrata to Brama, Murcha etc. Amavata also includes a set of musculoskeletal disorders like Rheumatic fever, Lupus erythematosus, Reiter's syndrome etc.<sup>1</sup>

The disease Amavata is diagnosed on the basis of its clinical features and a genuine history of exacerbations and remissions. Simultaneously an effort is made to co-relate the diagnosed cases of Amavata into, one of the diseases among the set of musculoskeletal disorders of the allied science.<sup>2</sup> Rheumatoid Arthritis, most commonly prevalent disease of musculoskeletal system. Simulates with features of Amavata, and the same is diagnosed with the Aids of ARA criteria, amongst which Rheumatoid factor is of immense importance for the confirmation of the diagnosis. Rheumatoid factor is found by using Immuno-turbidimetric method for Quantification.<sup>3</sup>

### Methodology:

Study design: Clinico-Observational study

### Source of data:

Patients who attend the OPD & IPD section of Sri Dharmasthala Manjunatheswara Ayurveda hospital, Kuthapady, Udupi were selected for the study.

### Method of collection of data:

As the present work was a clinic-observational study for which the patients complaining of Sandhishoola, Shotha, stabdata, sparshaasahatwa at the affected joints and also with other associated complaints like Angamardha, Aruchi, Trishna etc. were screened. In these patients the diagnosis of amavata was confirmed by the analysis of clinical manifestations as well as involvement of dosha & dushyas. The patients with definite diagnosis of amavata were further approached clinically to arrive at a diagnosis in conventional medicine. The complete profile of the patients was prepared as per the detailed clinical proforma, Assessment of pratyatma lakshanas is done as per the ARA (American Rheumatoid Association) criteria scoring and the Quantification of Rheumatoid factors is done by Immuno-turbidimetric method.

### Objectives:

1. Clinically diagnose the cases of Amavata.
2. To evaluate the sensitivity of Rheumatoid factors in the clinically diagnosed cases of Amavata.

### Inclusion criteria:

1. Patients exhibiting the features (lakshanas) of Amavata.
2. Patients of either sex.
3. Patients with no age limitations.

### Exclusion criteria:

1. Patients suffering from other systemic disorders along with Amavata

Method used: The Rheumatoid factors were quantified by using "Particle enhanced Immuno-turbidimetric method."  
Gold standard - 20 IU/ml

### Assessment criteria for Severity of Amavata

**Table No1: Pain & Swelling are assessed in following joints.**

Left Shoulder	Left Elbow	Left Wrist	Left Fingers
Left Knee	Left Ankle	Left Toes	Left Hip
Right Shoulder	Right Elbow	Right Wrist	Right Fingers
Right knee	Right Ankle	Right Toes	Right Hip

### Table No2: Pain and points given

Pain	Points
None	0
Mild	1
Moderate	2
Severe	3

### Table No3: Swelling and points given

Swelling	Points
None	0
Mild	1
Moderate	2
Severe	3

**Table No 4: Stiffness and points given**

Duration	Points
None	0
< 30 min	1
30-60 min	2
1-2 hrs	3
2-4 hrs	4
>4hrs but not all day	5
All day	6

**Table No5: Articular index**

No. of Joints involved	Index
<=5	1
6 to 14	2
>14	3

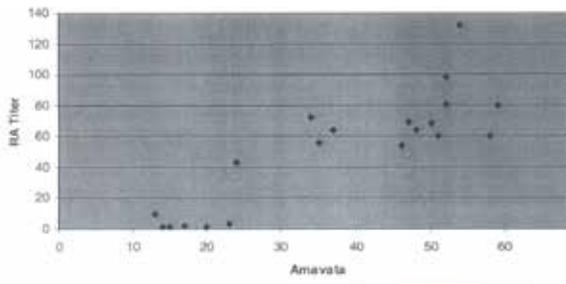
**Table No 6: Amavata Severity Scoring**

Clinical manifestations	Minimum score	Maximum score
Pain	0	48
Swelling	0	48
Stiffness	0	06
Joints involved	0	03
Total score	0	105

**Table No.7: Correlation between severity of Amavata and titer of Rheumatoid factor**

Total no of Patients	Average Severity of Amavata(±)	Average titer of RA factor (±SD)	Correlation coefficient	'p' value
20	37.450(±16.194)	50.915(±36.985)	0.820	> 0.050

**Graph.No.1 Correlation between severity of Amavata and titer of Rheumatoid factor**



**Discussion: \_**

Among the 20 diagnosed cases of Amavata 95% were Rheumatoid Arthritis & 5% were Rheumatic Fever. Rheumatoid factors are the auto-antibodies found in the sera of more than 80% of patients with Rheumatoid Arthritis and also in 5% of healthy individuals. The presence of Rheumatoid factors increases with age. Due to the presence of these factors in conditions like SLE, Sarcoidosis, Schistosomiasis, TB, etc the specificity of its presence in Rheumatoid Arthritis cannot be specified. These factors are transiently found in normal individuals after vaccination or transfusion. As it is found in most of the RA patients it is one of the reliable aids used among the diagnostic criteria mentioned by ARA.

This biochemical parameter helps in confirming the clinically diagnosed cases of Amavata. It is negative in some of the clinically diagnosed cases might be because of the reason that circulating antibodies are less, but if the synovial fluid is analyzed its presence can be revealed. The Rheumatoid factor titer helps to analyses the type & mode of Ayurvedic treatment i.e. Shodhana & Shamana or only Shamana. The titer value before and after the treatment help in assessing the effect of treatment.

**Conclusion:**

Amavata a disease entity with multifactorial origin involving multiple system can be diagnosed clinically with the help of History taking, Physical examination and evaluation with the ARA criteria mentioned for RA. Hence Rheumatoid factors are selected in the present study to buildup the relation between Rheumatoid Arthritis and Rheumatoid factors. The quantified Rheumatoid factors not only help in Diagnosis, Prognosis & confirmation of the clinical diagnosis but also help in planning the right treatment for each individual. The Rheumatoid factors in the negative reference range do not rule out the diagnosis of Amavata. The interpretation of Rheumatoid factors in relation to Asaatmyaja Bhava was not possible as the identification of Rheumatoid factors is through the Biochemical parameters.70% of the patients showed positive Rheumatoid factor titer & revealed statistically significant correlation between severity of Aamavata and Rheumatoid factor titer.

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