

# Clinical Evaluation of *Entada rheedei* Spreng. in Amavata with Special Reference to Rheumatoid Arthritis: A Randomized Comparative Study

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## ABSTRACT

**Background:** Amavata, described in Ayurveda, closely resembles Rheumatoid Arthritis (RA) in clinical presentation. Traditional folklore practitioners in Dakshina Kannada district of Karnataka have been using *Entada rheedei* Spreng. Seeds for the management of joint pain and swelling. However, scientific validation of this folklore claim remains limited.

**Aim:** To evaluate the clinical efficacy of *Entada rheedei* Spreng. in the management of Amavata with special reference to Rheumatoid Arthritis.

**Materials and Methods:** A randomized comparative clinical study was conducted on 40 patients diagnosed with Amavata/Rheumatoid Arthritis. Patients were divided into two groups of 20 each. Group A received internal administration of capsules containing seed powder of *Entada rheedei* Spreng. (500 mg twice daily), while Group B received both internal administration and external application of the drug mixed with water for 28 days. Assessment was carried out at weekly intervals based on subjective and objective parameters including Sandhi Ruja, Shotha, Stambha, Jwara, and Sanchari Vedana.

**Results:** Both groups showed significant improvement; however, Group A demonstrated comparatively better reduction in symptoms such as Sandhi Ruja, Vrishchika Damsavat Peeda, Sanchari Vedana, Jwara, and Shotha. Statistical analysis revealed highly significant results ( $P < 0.001$ ).

**Conclusion:** *Entada rheedei* Spreng. exhibited significant therapeutic efficacy in the management of Amavata/Rheumatoid Arthritis and supports the traditional folklore claim. The drug may serve as a promising herbal intervention for inflammatory joint disorders.

**Keywords:** Amavata, Rheumatoid Arthritis, *Entada rheedei*, Folklore Medicine, Ayurveda, Clinical Study

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## INTRODUCTION

Amavata is a disease characterized by the association of Ama and aggravated Vata Dosha leading to pain, stiffness, swelling, and restricted movement of joints. The clinical features of Amavata show marked resemblance to Rheumatoid Arthritis, a chronic autoimmune inflammatory disorder affecting synovial joints.

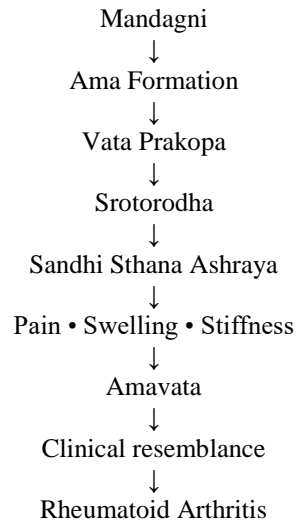
Ayurvedic classics describe Ama as the result of impaired digestion and metabolism. The vitiated Ama combines with Vata and localizes in Sandhi (joints), producing symptoms such as Sandhi Shoola, Shotha, Gatrastabdha, Jwara, and Angamarda.

*Entada rheedei* Spreng., locally known as Pallekai, is a folklore medicinal plant abundantly found in the Western Ghats. Traditional practitioners have long used its seed pulp for managing joint disorders. The present study was designed to scientifically validate this traditional claim through clinical evaluation.



Image of the plant *Entada rheedei* Spreng

### Correlation between Amavata and Rheumatoid Arthritis



### DRUG REVIEW

#### Botanical Classification

Taxonomic Rank	Classification
Kingdom	Plantae
Family	Mimosaceae / Fabaceae
Genus	Entada
Species	<i>Entada rheedei</i> Spreng.

#### Morphology of *Entada rheedei*

The plant is a perennial climbing vine with large woody pods and circular brown seeds. Seeds are approximately 5 cm × 5 cm and possess hard woody shells.

#### Morphological Features of *Entada rheedei*

Plant Type : Giant Climbing Vine  
Leaves : Bipinnate compound

Flowers : Sessile, pentamerous  
Pods : Long woody legumes  
Seeds : Brown, circular, hard

### Rasa Panchaka

Parameter	Property
Rasa	Kashaya
Guna	Ruksha
Virya	Ushna
Vipaka	Katu
Karma	Deepana, Pachana, Kapha-Vata Shamaka

## MATERIALS AND METHODS

### Study Design

Randomized comparative clinical trial.

### Sample Size

Forty patients diagnosed with Amavata/Rheumatoid Arthritis were selected from the OPD and IPD of Alva's Ayurveda Medical College and Hospital.

### Inclusion Criteria

- Patients aged between 20–60 years
- Clinical features suggestive of Amavata/RA
- Patients willing to participate

### Exclusion Criteria

- Severe systemic illness
- Advanced deformities
- Pregnancy and lactation

### Grouping

#### Group A

Internal administration of *Entada rheedei* seed powder capsules (500 mg twice daily).

#### Group B

Internal administration of capsules along with external application of seed paste.

### Duration

28 days.

### Assessment Criteria

#### Subjective Parameters

- Sandhi Ruja
- Sanchari Vedana
- Stambha
- Vrischika Damsavat Peeda

#### Objective Parameters

- Shotha
- Jwara
- Rheumatoid Factor

### Statistical Analysis

Paired and comparative statistical analyses were carried out using standard statistical methods.

### RESULTS

Both treatment groups demonstrated improvement in clinical symptoms. Group A showed superior reduction in joint pain, stiffness, swelling, and systemic symptoms compared to Group B.

The reduction in Sandhi Ruja and Sanchari Vedana was highly significant statistically ( $P < 0.001$ ). Improvement in inflammatory symptoms like Jwara and Shotha was also observed.

No major adverse effects were reported during the study period.

**Table 1. Demographic Distribution of Patients**

Parameter	Group A (%)	Group B (%)
Female	65	70
Male	35	30
Age 20–40 years	55	60
Age 41–60 years	45	40
Rheumatoid Factor Positive	60	65

**Table 2. Effect on Clinical Symptoms in Group A**

Symptom	BT Mean Score	AT Mean Score	% Relief	P-value
Sandhi Ruja	3.8	1.2	68.4%	<0.001
Stambha	3.5	1.1	68.5%	<0.001
Shotha	3.2	1.0	68.7%	<0.001
Jwara	2.4	0.6	75.0%	<0.001
Sanchari Vedana	3.6	1.3	63.8%	<0.001

**Table 3. Comparative Overall Improvement**

Response	Group A	Group B
Marked Improvement	55%	30%
Moderate Improvement	35%	45%
Mild Improvement	10%	20%
No Improvement	0%	5%

### DISCUSSION

The therapeutic effect of *Entada rheedei* may be attributed to its Ayurvedic properties including Kashaya Rasa, Ushna Virya, and Katu Vipaka. These properties help in Ama Pachana, Vata-Kapha Shamana, and reduction of inflammation.

The observed clinical improvement suggests anti-inflammatory and analgesic potential of the drug. The results support the traditional folklore use of the plant in inflammatory joint disorders.

The study also indicates the possibility of integrating folklore medicinal knowledge with evidence-based Ayurvedic practice.

## CONCLUSION

The present clinical study demonstrates that *Entada rheedii* Spreng. is effective in reducing signs and symptoms of Amavata/Rheumatoid Arthritis. The drug showed significant anti-inflammatory and analgesic activity with good tolerability.

Further multicentric studies with larger sample sizes and advanced biochemical markers are recommended to establish its therapeutic potential.

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