

## “A CLINICAL STUDY TO EVALUATE EFFECT OF ALEPA IN THE MANAGEMENT OF RHEUMATOID ARTHRITIS”

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### ABSTRACT

Rheumatoid arthritis is a chronic disease affecting multiple joints. It can be correlated to Amavata in Ayurveda. Amavata is a disease mainly affected due to Agni dushti. Whenever a person's Agni is impaired due to any nidana, Ama forms. Then it spreads to shleshma sthana due to prakupitha vata and spreads all over.<sup>[1]</sup> Ama along with vata and kapha doshas are the main dominant doshas in this disease which have Sheeta guna in common. As an opposite treatment we should do Ushna chikitsa.<sup>[2]</sup> Hence Alepa having Pachana and swedana property is selected for external application and internal administration. **Objectives:** To evaluate effect of Alepa in Rheumatoid arthritis. To assess the changes in inflammatory markers - ESR CRP ASO and RA factor. **Design:** It is a Single blind clinical study with pre- test and post-test design, carried out in S.D.M. Ayurveda Hospital, Udupi.

**Study Selection:** A single group consisting of 20 Patients diagnosed as Rheumatoid arthritis, according to the diagnostic criteria having either gender selected for the study. **Intervention:** After selecting the patients diagnosed with rheumatoid arthritis based on diagnostic criteria, Alepa is applied externally and administered orally and the signs and symptoms, biomarkers of Rheumatoid arthritis are evaluated before and after the treatment. **Result:** Alepa showed highly significant results in sandhishotha, sandhishoola, alasya, pain\_VAS, agni, angamarda, aruchi, Trishna, gourava, and also significant changes in inflammatory markers like CRP, RA, ASO, ESR.

**KEYWORDS:** Alepa, Rheumatoid arthritis, Amavata.

## INTRODUCTION

Rheumatoid arthritis is a chronic inflammatory autoimmune disorder affecting functional and anatomical integrity of joints. Prevalence of rheumatoid arthritis worldwide is at 460 for every 1 lakh people and is alarmingly on the rise.<sup>[3]</sup> Female patients are three times more prone to rheumatoid arthritis than males.<sup>[4]</sup> While rheumatoid arthritis is a chronic illness, meaning it can last for years, patients may experience long periods without symptoms. Typically, however, rheumatoid arthritis is a progressive illness that has the potential to cause joint destruction and functional disability.

Ama in the body carried by dooshitha vaata leads to stabdhatha and gurutha of gaathra. This produces symptoms of amavaata on sthaanasamshraya; Angamarda, aruchi, trushna, aalasya, gaurava, jwara, apaaka, shoonatha of anga<sup>[5]</sup> correlates to the set of symptoms explained for Rheumatoid arthritis. Rheumatoid arthritis patients' main complaints of concern are seen to be morning stiffness, pain, swelling and tenderness. Most evident distinguishing symptom of rheumatoid arthritis has been explained to be morning stiffness and symmetrical joint involvement in the body. Acharya Chakradatta included Langhana, Swedana, Katu Tikta dravya prayoga and Deepana in the management of Amavata.<sup>[6]</sup> Rooksha swedana is a preferred bahirparimarjana chikithsa mentioned in ashtanga hrudaya<sup>[7]</sup> and madhava nidhana.<sup>[8]</sup> Dravyas in Alepa are having Ushna properties. External application causes swedana effect. Drugs mentioned in Alepa are having Agni deepana properties. So, when we administer them internally, they will increase agni. In view of the above-mentioned points, this study was carried out to evaluate the effect of Alepa in the management of Rheumatoid arthritis.

For this purpose, 20 diagnosed patients of Rheumatoid arthritis who were fulfilling the diagnostic criteria were included in the study. Externally Lepa was applied in Pratiloma gati (upward direction of body hairs) all over the body except above neck region and genital area with a thickness of Ardramahishacharma<sup>[9]</sup> or approximately 2.8 to 3.2mm and left for 4 hours or till it starts to dry up. 10gms of freshly prepared alepa was given orally with 1 pala (approximately 50ml) of Luke warm water in the afternoon after food just before the application of alepa externally. This procedure was continued daily for 7 days. Objective parameters were assessed before and after the treatment.

## MATERIALS AND METHODS

**Medicine Source:** There are total 10 drugs. 5 wet drugs were freshly collected from the herbal garden of Shri Dharmasthala Manjunatheshwara Ayurveda college and hospital Campus which are authenticated by experts and 5 dry drugs were procured from Shri Dharmasthala Manjunatheshwara Ayurveda pharmacy.

**Patient source:** Patients attending OPD & IPD of Shri Dharmasthala Manjunatheshwara Ayurveda Hospital, Udupi, fulfilling the inclusion and exclusion criteria were selected for the study.

**Method of data collection:** It is an open labelled clinical study to assess pre and post status of Alepa. Patients of either sex were selected randomly. A special Proforma containing details necessary for study was prepared.

### Study design

- Study type: Clinical study
- Enrolment: 20 patients
- Allocation: Non randomised
- End point classification: effect study
- Intervention model: Clinical group
- Primary purpose: treatment
- Masking: Open label study

Inclusion criteria:	Exclusion criteria:
Patients fulfilling diagnostic criteria	All connective tissue disorders other than RA
Patients aged between 18-70 years	Patients with any other systemic illness which will hamper treatment.
Patients who are fit for Alepa chikitsa	All patients with acid peptic disease for internal administration of alepa.

### Assessment Criteria

The signs and symptoms were assessed before treatment on 0th day and after the treatment on 7th day.

## SUBJECTIVE PARAMETERS

Morning stiffness.

Soft tissue joint swelling observed by physician at least 3 joint groups.

Symmetrical swelling of one joint area.

Amavata lakshanas: Sandhishotha and sandhishoola, Angamarda, aruchi, trushna, alasya, gourava, nidraviparyaya.

## OBJECTIVE PARAMETERS

Pain – VAS criteria

Stiffness

Range of movement

Sandhishoola

Sandhishotha

Angamarda

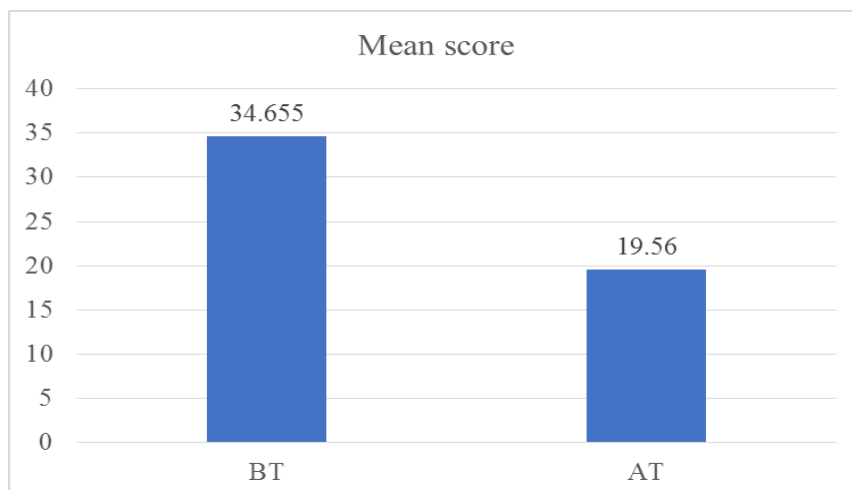
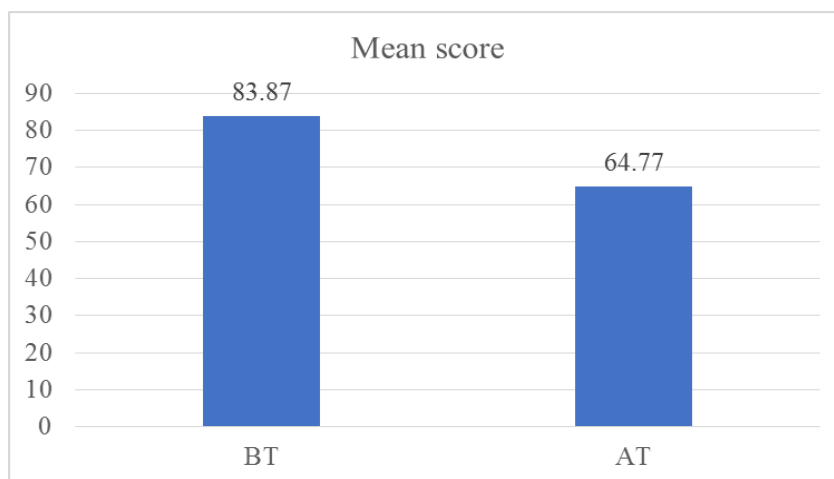
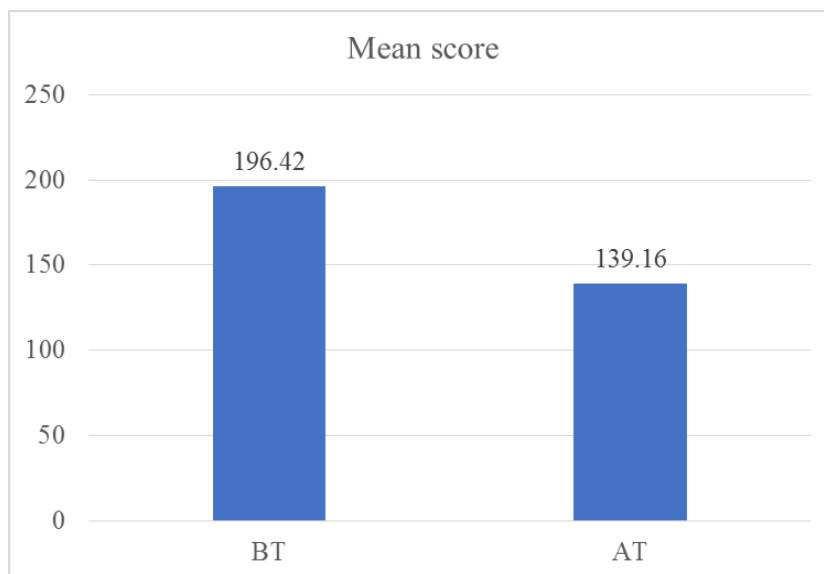
Nidra Viparyaya

On 0th day before treatment and on 7th day, after treatment inflammatory markers - ESR CRP ASO and RA factors were assessed.

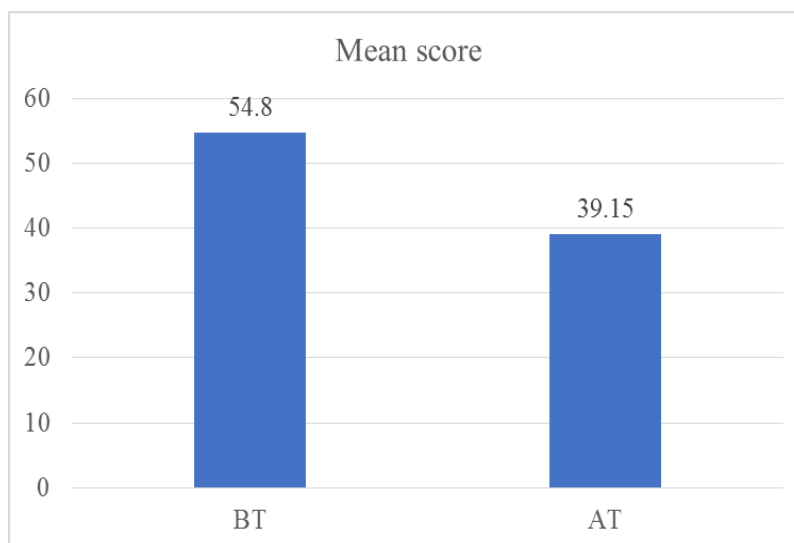
## OBSERVATIONS AND RESULTS

In this series, 20 patients of rheumatoid arthritis were studied, 90% of the patients in this study belonged to age group 40 years and above and 85 % of them were female, Housewife category were 55%, 80% of patients were Hindu religion, 80% of them were Hindu religion, 90% of them were Married group of people, 75% of patients were upper middle class. In this study, 65% people were vegetarian category, 45% people did only routine work, 60% people had disturbed sleep, 65% people had day sleep of 30-60 mins per day, 90% of people had reduced appetite, 65% patients had constipated bowel. In this series, before treatment, 75% patients had swelling, 85% had redness of joints, 90% had increased local temperature, 95% had morning stiffness up to 120 mins, 80% had pain, 80% of patients had no deformities.

Alepa chikitsa showed statistically highly significant improvement in CRP (43.55%), RA (22.773%), ASO (29.151%), ESR (28.558%) marker.

**CRP: 43.55%****RA: 22.773%****ASO: 29.151%**

**ESR:** 28.558%



Alepa provided statistically highly significant results on cardinal features of Amavata like- Sandhoshotha, sandhishoola, alasya, pain, agni, angamarda, aruchi, gourava parameters.

## DISCUSSION

Vitiated Vata Dosha in association with Ama circulating in all over the body gets lodged in the Sandhi, one among the Kaphasthana and Asthi being the Ashraya of Vata. The role of Tulya Dosha Dushyata in causation of Amavata is apparent from the above. The disease starts in the GIT level and while manifestation of symptoms at Sandhi level it involves the Rasa, Asthi and Majja Dhatus and involvement of the Mamsa in later stage.

The line of treatment of this disease is Langhana, Swedana and mainly Pachana and deepana. In the Sama stage of Rheumatoid Arthritis, one should plan the treatment which pacifies the Vata and does Pachana of the Ama without reducing the Bala of the patient. Niragni Upanaha in the form of Pradeha with the drugs possessing Ushna, Teekshna and Ruksha properties does the reduction of Ama and Vata without hampering the Bala of patient. The drugs used for this Alepa are Ushna Teekshna and having mainly Swedana, Rookshana and Pachana properties. It helps in better bioavailability by dilation of pores of skin and also effectively removes excess extracellular fluid causing the swelling in joints. Alepa drugs are Ushna in Veerya and possess Kaphavatahara property, which may help in digesting Ama and relieving Vata. Naturally most of these drugs (alepa ingredients) have Aroma of its own.

In ayurveda it is told that Vata is controlled by the usage of aromatic drugs. Various chemical constituents present in the Alepa drugs have Anti-inflammatory activities. Properties of Alepa

(Niragni Upanaha drugs) are having Vedanasthapaka, Shothahara and Kaphavatahara properties, which may relieve the cardinal symptoms of Rheumatoid arthritis, i.e., joint pain, swelling and stiffness by Samprapti Vighatana due to their direct action on rasa dhatu, jataragni, dhatwagni and ama. Intake of drugs with same property may enhance the effect by accelerating the process of Ama Pacana and acting as Svedana, thereby relieving the severity of the symptoms.

**Transdermal Drug Delivery System:-** It is a recent concept that takes skin into consideration as a route of drug delivery. This might be helpful in understanding how the treatments such as lepa, abhyanga, swedana etc. are getting into the cutaneous circulation with maximum therapeutic effect.

**Observations during the treatment:** During the course of treatment, 2 patients complained of itching all over the body. So, to counteract this, Laghu soothashekhara rasa in the dose of 1 TID was administered orally to those patients. They got reduced symptoms of itching within a span of 2 days. This is due to Sama pitta present in the patient which manifests in the skin when its pachana process is going on.

Patients were advised to avoid spicy, oily, fried food articles also suggested to drink plenty of water and fluids during the course of treatment. This is because, oral administration of alepa should not further vitiate agni and pitta dosha in the body.

The treatment might have reduced the symptoms and biomarkers of Rheumatoid Arthritis by doing the Ama Pachana along with the reduction of Vata to some extent through the drug action and benefits got by Ruksha Svedana.

## CONCLUSION

On the basis of results of this work, it may be concluded that Alepa applied externally as lepa and given orally, it can be incorporated under the variety of Upanaha Swedana, Pachana mentioned in Ayurveda, it is effective in the treatment of Sama, Avarana conditions, increases jataragni and can be prescribed for the patients of rheumatoid arthritis patients along with other treatments. The results of this study are very encouraging and may stimulate the research workers in the field to explore such other untouched parts of ayurveda so that they may be included in the Ayurvedic therapeutics to alleviate the suffering of the humanity.

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