

Effect of Medicated Enema and Herbal Formulation over Inflammatory Biochemical Markers in Rheumatoid Arthritis: A Case Report

VAISHNAVI SUBHASH BODHE¹, PUNAM GAURAV SAWARKAR², GAURAV R SAWARKAR³

ABSTRACT

Rheumatoid Arthritis (RA) is the predominant type of autoimmune inflammatory arthritis, affecting approximately 0.75% of the Indian population. It is a painful condition that impacts an individual's overall physical and mental well-being, making daily tasks challenging. This is a single case study primarily aimed at investigating the efficacy of a medicated enema (*Vaitaran Vasti*) and oral herbal formulations on the inflammatory biochemical parameters of RA. The present case involves a 53-year-old female patient who was diagnosed with RA a few months ago based on clinical symptoms, such as multiple joint pain and morning stiffness throughout the body lasting for about 60 to 90 minutes. The patient was assessed based on clinical features and biochemical parameters, which are gold standard measures in conventional medicine for RA. After undergoing treatment, the patient's quality of life improved significantly due to a substantial reduction in all clinical symptoms, including pain, stiffness, swelling, and bipedal oedema. Moreover, the values of the RA test and CRP levels were significantly reduced from 64 IU/L and 96 mg/L to 16 IU/L and 24 mg/L, respectively, after 15 days. The patient did not require oral pain relievers. Ayurvedic treatment yielded excellent outcomes in this case, especially when conventional medical options were limited. Exploring Ayurveda as a treatment avenue has provided a glimmer of hope.

Keywords: Autoimmune arthritis, Ayurveda therapy, Herbal remedies, Inflammatory biomarkers, Joint inflammation, *Vaitaran basti*

CASE REPORT

A 53-year-old female patient visited the outpatient department of *Panchakarma* with complaints of joint pain and body aches (VAS scale: 8), morning stiffness lasting 60 to 90 minutes, and swelling in the left knee joint, along with pain and stiffness in both wrist and ankle joints for the past 4 to 5 months. The pain was severe, and the patient had been taking oral analgesic chloroquine 200 mg twice daily for approximately 2 to 3 months, although only temporary relief was observed.

The patient has a history of ureteric calculi and uterine fibroids 5 to 6 years ago. She has a surgical history of laparoscopy and hysterectomy. On examination, the radial pulse was 73 beats per minute. She reported a normal appetite, abnormal sleep due to pain, unclear bowels with indigestion, and a recurrent history of hyperacidity over the past four to five months. There was no history of diabetes mellitus or hypertension, and there was no significant or relevant family history.

On physical examination, clinical findings included severe pain (as assessed by the visual analog scale), stiffness, and swelling in the left knee joint, which measured 41 cm using a standard measuring tape. There was moderate pain and stiffness in both wrist and ankle joints, with morning stiffness lasting 60 to 90 minutes, and raised local temperature at the left knee joint observed. The severity of the swelling in both legs was evaluated by applying pressure to the affected areas. Grade 3 bipedal oedema was noted, characterised by deep pitting that persisted for several seconds after releasing the pressure.

The radial pulse remained at 73 beats per minute. According to the Ayurvedic *Ashtavidha* (eight-fold) examination, the pulse was *Kaphaj* with *Hansa Gati*; urine and faecal matter were normal; the tongue was coated; the voice was clear; touch was normal; and the eyes were normal with clear vision. The body appearance was also normal. Laboratory findings revealed that the RA factor was

positive (RA test titer: 64 IU/mL). The ESR was found to be 52 mm after one hour. The hemogram and other parameters were within the normal range, while the C-reactive protein level was 96 mg/L.

According to the criteria established by the American College of Rheumatology (ACR) and the European League Against Rheumatism (EULAR) in 2010, the diagnosis was confirmed as RA [1].

Ayurvedic differential diagnoses included RA [2], gout [3], and osteoarthritis [4]. However, the possibility of gout was ruled out due to the involvement of both small and large joints and the absence of symptoms related to blood vitiation. Additionally, the lack of full-body stiffness led to the exclusion of osteoarthritis. Consequently, based on symptoms such as stiffness and severe joint tenderness, the diagnosis of RA was confirmed.

The patient's treatment protocol was divided into two components: purification therapy and oral medications (palliative treatment). The details of the purification therapy and palliative treatment prescribed to the patient are provided in [Table/Fig-1,2], respectively.

S. No.	Therapy	Drug	Region	Quantity
1.	Oleation therapy	<i>Saindhavadi oil</i>	All over body	As required
2.	Sudation therapy (<i>Patra pinda sweda</i>)	<i>Nirgundi</i> (<i>Vitex negundo</i>), <i>Eranda</i> (<i>Ricinus communis</i>), <i>Arka</i> (<i>Calotropis gigantea</i>), <i>Agnimantha</i> (<i>Clerodendrum phlomidis</i>)	All over body	As required
3.	Medicated enema (<i>Vaitaran Basti</i>)	<i>Tamarind</i> paste (80 gm), <i>Jaggery</i> (40 gm), Cow's urine (30 mL), <i>Sesame oil</i> (30 mL), <i>Rock salt</i> (10 gm)	Enema	450 mL

[Table/Fig-1]: Purification therapy prescribed.

Following the initial 15 days of oral medication and purification therapy, there was a slight reduction in oedema and tenderness in both the knee and wrist joints, along with a notable decrease in pain, as indicated in [Table/Fig-3]. The RA factor titer also decreased from

S. No.	Drug name	Dose	Frequency	Time	Adjuvant	Duration
1.	Simhanad Guggul	200 mg	3 BD	After meal	Lukewarm water	15 days
2.	Amavatari Rasa	125 mg	2 BD	After meal	Lukewarm water	15 days
3.	Rasnasaaptak decoction	15 mL	BD	After meal	Lukewarm water	15 days
4.	Hingwashtak powder	5 gm	BD	After meal	Lukewarm water	15 days
5.	Gandharva Haritaki powder	10 gm	HS	Before bed	Lukewarm water	15 days
6.	Rasapachak tablet	250 mg	2 BD	After meal	Lukewarm water	15 days
7.	Tab Rumalaya Forte (Himalaya Wellness Company)	1 tablet	1 BD	After meal	Water	15 days
8.	Punarnavaadi Guggulu	200 gm	3 BD	After meal	Lukewarm water	15 days
9.	Ampachak tablet	200 gm	2 BD	After meal	Lukewarm water	15 days

[Table/Fig-2]: Palliative treatment prescribed.

BD: Twice a day; HS: Take at bedtime; gm: Grams; mL: Milligrams

64 to 16 IU/mL, slightly above the normal range. The C-reactive protein levels decreased from 96 to 24 mg/L [Table/Fig-4]. Hepatic and renal profiles conducted two weeks after treatment were within normal limits. The patient continues regular follow-ups and shows no signs of disease aggravation.

S. No.	Symptom	Graduation/Severity	Before treatment	After treatment
1.	Pain (VAS scoring)	No pain-0 Mild: 1-3 Moderate: 4-6 Severe: 6-7 Very Severe: 7-9 Worst pain possible: 9-10	8	1
2.	Morning stiffness	-	60-90 minutes	30-40 minutes
3.	Swelling (circumferential measurement)	-	41 cm	36 cm
4.	Bipodal oedema	Absent-0 Mild-1 Moderate-2 Severe-3	3	1

[Table/Fig-3]: Effect of therapy over clinical features.

S. No.	Inflammatory biochemical markers	Before treatment	15 days after treatment
1.	RA Factor	64 IU/L	16 IU/L
2.	ESR- Erythrocyte sedimentation rate	52 mm/1 st hour	56 mm/1 st hour
3.	C-reactive protein	96 mg/L	24 mg/L

[Table/Fig-4]: Effect of therapy over inflammatory biochemical parameters.

DISCUSSION

The RA impacts approximately 0.3% to 1% of the world population [5]. It is estimated to affect about 0.75% of the population in India [6]. Treatment modalities for RA in modern medicine have limitations, such as side effects and a lack of permanent relief [7]. Therefore, exploring alternative therapies like Ayurveda becomes crucial. Numerous case studies and reviews have highlighted the efficacy of Ayurvedic interventions in managing RA. For instance, a clinical study on leech therapy demonstrated its effectiveness in reducing signs of joint inflammation, such as pain, swelling, and restricted movement, across various types of arthritis, including RA. This therapy's multifaceted actions, such as anti-inflammatory and immunomodulatory effects, were found to produce noticeable improvements after just five sessions, particularly in pain relief [8].

However, this study primarily focused on physical symptoms and lacked an evaluation of biochemical markers, differing from the approach taken in this case report.

Similarly, a head-to-head exploratory trial comparing Ayurvedic polyherbal and monoherbal formulations with Hydroxychloroquine Sulfate (HCQS) found that the polyherbal formulation was as effective as HCQS in controlling active RA, with fewer adverse effects, emphasising its safety and potential for long-term use [9]. Unlike this case report, this study evaluated symptom control and treatment efficacy without examining inflammatory biochemical markers. Furthermore, a comprehensive review protocol aims to systematically assess clinical trials and meta-analyses of Ayurvedic interventions for RA, emphasising the growing focus on integrating traditional and evidence-based approaches [10]. While this review is significant for consolidating existing evidence, it does not include direct experimental results, which sets it apart from the experimental findings presented in this case report.

In this case, the patient underwent a comprehensive Ayurvedic regimen, including oral herbal medications and purification therapy with a medicated enema.

Simhanad Guggulu, Amavatari Rasa, Rasnasaptak decoction, and other herbal formulations aimed to pacify the vitiated bio-energies *Vata* and *Kapha*, reduce inflammation, and strengthen the joints. *Simhanad Guggulu* primarily works by balancing the *Vata* and *Kapha* doshas, thereby reducing joint inflammation and pain [11]. *Amavatari Rasa* is known for its anti-inflammatory properties and effectively reduces inflammation [12]. *Rasnasaaptak* decoction contains herbs that help reduce joint inflammation and stiffness by pacifying *Vata* [13]. *Hingwashtak* churna pacifies *Vata* and helps alleviate joint pain and swelling [14]. *Gandharva haritaki* powder helps eliminates waste from the bowel and extracts toxins from the body [15]. *Rasapachak* tablets pacify vitiated *Kapha* and *Pitta* and improves digestion [16]. *Punarnavaadi Guggulu* acts as an anti-inflammatory and anti-arthritis agent [17]. *Ampachak* tablets increases the appetite and support the digestion of undigested food [18].

Additionally, due to the severe aggravation of *Vata*, a medicated enema (*Vaitarana Basti*) proved beneficial in pacifying both *Vata* and *Kapha*. This treatment helps reduce oedema and pain, detoxify the body, and alleviate symptoms, thereby balancing the aggravated *Vata Dosha* [19].

Patra Pottali Sweda consists of certain herbs like *Nirgundi* (*Vitex negundo*), *Eranda* (*Ricinus communis*), *Arka* (*Calotropis gigantea*), and *Agnimantha* (*Clerodendrum phlomidis*), among others. These herbs contain phytochemicals with analgesic and anti-inflammatory properties that alleviate pain, swelling, and stiffness while increasing the range of motion in the affected joints [20].

While further research is needed, Ayurveda offers a promising alternative for patients seeking safe and effective treatments for RA, particularly in cases where conventional options are limited or associated with adverse effects.

Patient perspective: As someone suffering from RA, navigating its challenges is daunting. However, exploring Ayurveda as a treatment avenue has provided hope. There was a notable improvement in my symptoms, significantly enhancing my quality of life. The relief from pain, morning stiffness, and swelling in the knee joints was drastic. Ayurvedic treatment has not only eased my complaints but also improved my overall physical and psychological well-being.

CONCLUSION(S)

This case demonstrates the potential of Ayurveda in the management of RA, with significant improvements observed in pain and morning stiffness, along with a notable reduction in biochemical inflammatory parameters. Further research is warranted to validate these findings. Additionally, investigating the mechanisms of action of specific Ayurvedic interventions, such as medicated

enemas, on inflammatory biochemical markers could enhance our understanding of their therapeutic effects.

Informed consent: The Informed written consent was obtained from the patient to publish the present case study.

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PARTICULARS OF CONTRIBUTORS:

1. Department of Panchakarma, Mahatma Gandhi Ayurved College, Salod, Wardha, Maharashtra, India.
2. Department of Panchakarma, Mahatma Gandhi Ayurved College, Salod, Wardha, Maharashtra, India.
3. Department of Rachana Sharir, Mahatma Gandhi Ayurved College, Salod, Wardha, Maharashtra, India.

NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Vaishnavi Subhash Bodhe,
Department of Panchakarma, Mahatma Gandhi Ayurved College, Salod,
Wardha, Maharashtra, India.
E-mail: vbodhe19@gmail.com

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