

Case Series



Short-term evaluation of *Shatapaka Guduchi Taila* in Rheumatoid Arthritis – A case series

[1Pankaj Sharma](#), [2*Suhaskumar Shetty](#)

ABSTRACT:

Background: Rheumatoid Arthritis (RA), an immune-mediated chronic inflammatory disorder of the musculoskeletal system, is understood under the spectrum of *Amavata* and *Vataraktam* (NAMC-Code EC-6 & ED-8). Nine patients with ACR/EULAR-Criteria ≥ 6 with classical symptoms based on Ayurveda were taken, and *Shatapaka Guduchi Taila* was administered in a dose of 15 drops twice-daily with water before-food, along with assessment of clinical and laboratory-parameters. **Clinical Findings:** A total of 9 patients with *lakshanas* of i.e., *Shoola*, *Shotha*, *Stabdhatata*, *Sparsh-Asahatwam*, *Bhrishoshmata*, *Daha*, along with signs of RA for more than 6 weeks, were diagnosed, and laboratory parameters of ESR, RA and CRP; and Clinical parameters of Disease Activity Score (DAS-28-ESR and DAS-28-CRP), Patient's Assessment of Activity (VAS), and HAQ-DI (Health Assessment Questionnaire and Disability-Index) were assessed on Baseline, 7th and 30th day of administration of medicine. **Results:** *Shatapaka Guduchi Taila* was taken for a period of 30-days with evaluation of ESR, RA and CRP along with clinical assessment. The mean value of ESR changed from 43.33 to 29.44, RA from 24.59 to 22.19, CRP from 10.87 to 6.32, DAS-28-ESR from 6.03 to 4.99, DAS-28-CRP from 5.19 to 4.3, VAS from 7.11 to 4.56 and HAQ-DI from 1.25 to 0.67, along with improved subjective parameters, well-being and quality of life. **Conclusion:** Patients who had elevated ESR, RA, and CRP levels, along with clinical symptoms of RA, showed improvement in clinical and laboratory parameters after utilising *Shatapaka Guduchi Taila*. All patients reported improved well-being without any adverse effects or side effects.

KEYWORDS: Case Series, Rheumatoid Arthritis, *Shatapaka Guduchi Taila*.

RECEIVED ON:

23-07-2025

REVISED ON:

14-08-2025

ACCEPTED ON:

17-08-2025

Access This Article Online:

Quick Response Code:



Website Link:

<https://jahm.co.in>

DOI Link:

<https://doi.org/10.70066/jahm.v13i7.2249>

Corresponding Author Email:

[druhasshetty@gmail.com](mailto:drsuhasshetty@gmail.com)

CITE THIS ARTICLE AS

Pankaj Sharma, Suhaskumar Shetty. Short-term evaluation of *Shatapaka Guduchi Taila* in Rheumatoid Arthritis – A case series. *J of Ayurveda and Hol Med (JAHM)*. 2025;13(7):60-68



1. INTRODUCTION

Rheumatoid arthritis (RA) is an immune-mediated, chronic systemic inflammatory disorder characterised by autoantibody production, synovial hyperplasia, progressive bone and cartilage degeneration, and joint deformities. [1] RA is marked by symmetrical inflammation of the joints, associated with pain, swelling, stiffness, physical disability and progressive destruction of soft tissues, especially involving the peripheral joints. Though the exact cause of RA is not fully understood, it is believed to arise from a combination of genetic factors, environmental factors or underlying infections. [2] The etiopathogenesis and clinical presentation of RA do not align precisely with a single *Ayurvedic* condition; thus, RA is understood based upon the presentation of *lakshanas* (signs and symptoms), namely - *Shoola/Ruk/Toda/Ruja* (joint pain), *Shwathu/Shoatha/Shoatha Vriddhi-Hani* (swelling), *Stabdhata* (stiffness), *Bhrisham-arti* (discomfort), *Daha* (burning sensation), *Sparsh-Asahatwam* (tenderness/unable to touch), *Anguli-vakrata* (deformity) or *Bhrishoshmata* (raised temperature). These symptoms are understood based on the *dosha* dominance and their association with the *dhatu* involved. In this case series, cases after being diagnosed as *Nirama* and *Gambheera awastha* dominant, *Shatapaka Guduchi Taila*, a compound oil formulation containing *Guduchi (Kalka-Dravya)*, *Tila Taila (Sneha-Dravya)*, and *Goksheera (Drava-Dravya)*, prepared on the principles of *Sneha Kalpana* and *Avartana* based on *Sharangdhara Samhita* has been utilised and assessed on subjective and objective parameters, and the

observations are recorded, for possible benefits in Rheumatoid Arthritis.

2. MATERIALS AND METHODS

Patient Details

A total of nine patients, presenting to OPD, KLE Ayurveda Hospital, Belagavi, with chief complaints of *Shoola, Shotha, Shotha-Vriddhi-Hani, Stabdhata, Bhrisham-Arti, Daha, Sparsh-Asahatwam, Bhrishoshmata*, along with signs of RA, for more than six weeks, of either sex, aged 20-60 years, were diagnosed based on ACR/EULAR Criteria, investigated (ESR,RA,CRP) and administered the treatment. The patients were incorporated under the advanced and *nirama awastha* of *Amavata*, which resembled to samprapti of *Gambheera* Stage of *Vataraktam* based on the presentation and involvement of *rakta dhatu*. The demographic details and *lakshanas* of all patients are tabulated in Tables 1 and 2.

Clinical Findings

All 9 patients were not on anti-rheumatic medications (DMARDs), had NSAID washout period of 5-7 days; without secondary complications of RA (e.g. vasculitis, scleritis), severely damaged joints, other types of arthritis (osteoarthritis, gout), poorly managed hypertension, diabetes mellitus, cardiac diseases, hepatic diseases; and were not pregnant or lactating women. They showed no abnormalities in the GIT, CNS, CVS, or respiratory systems on clinical examination. Their clinical findings are described in Table 2.

Diagnostic Assessment and Treatment Protocols

The patients were diagnosed as RA after fulfilling the diagnostic criteria based on EULAR/ACR-Criteria ≥ 6 . The

same was confirmed with the laboratory investigations (ESR, CRP and RA-titre). The patients were administered *Shatapaka Guduchi Taila*, 15 drops (quantified to 500mg at KLE Ayurveda Pharmacy, a GMP-certified pharmacy, Belagavi, Karnataka), twice-daily with water before-

food. The clinical and laboratory parameters were evaluated on 0th-day (baseline, day of consultation), and two follow-ups on the 7th and 30th-day. (Tables 3 and 4) No Any concomitant medicines were used along with *Shatapaka Guduchi Taila*.

Table 1: Demographic Details of Patients

Sl.No.	Age (years)	Gender	Occupation	Social Status	New or Old Case
1.	31	F	Medical Professional	Upper Middle Class	New
2.	38	F	Worker	Middle Class	New
3.	48	F	Worker	Lower Middle Class	Old
4.	49	F	House Maker	Upper Middle Class	Old
5.	25	F	Student	Upper Middle Class	New
6.	27	F	House Maker	Upper Middle Class	New
7.	45	F	Worker in the Mess	Lower Middle Class	New
8.	46	M	Corporate Employee	Upper Middle Class	Old
9.	35	F	Weaver	Lower Middle Class	New

All patients were assessed on the *Ayurvedic* Parameters of *Amavata* (EC-6) and *Vataraktam* (ED-8), RA-Titre, Erythrocyte Sedimentation Rate, C-Reactive Protein-Titre, DAS-28(ESR) (Disease Activity Score), DAS-28(CRP), Patient's Assessment of Activity (VAS), and

HAQ-DI (Indian Version of Health Assessment Questionnaire and Disability Index) on Baseline, 7th, and 30th-Day. The observations are recorded in Tables 2, 3 and 4.

Table 2: Assessment of Lakshanas (Clinical Findings)

S.No.	Lakshanas	1		2		3		4		5		6		7		8		9		
		B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	
1.	<i>Shoola</i> (Small joints of hands)	++	+	+++	+	+++	+	+++	+	++	+	++	+	++	+	+	+	+	+	
2.	<i>Shoola</i> (joints of feet)	++	+	++	+	++	+	+++	+	++	-	+	-	++	-	-	-	+	+	
3.	<i>Shotha</i> (swelling)	-	-	-	-	+	+	++	++	-	-	+	-	+	-	+	-	+	+	
4.	<i>Shotha-Vridhhi-Hani</i> (swelling increase and decrease)	+	-	-	-	+	-	++	++	-	-	-	-	-	-	-	-	-	+	-
5.	<i>Stabdhata</i> (stiffness)/morning stiffness >1hr ease on activity	++	+	+++	+	+	+	+++	+	++	-	-	-	++	+	+	+	+	-	
6.	<i>Bhrisham-Arti</i> (discomfort)	+	-	+	-	+	-	+	-	+	-	+	-	-	-	+	-	+	-	

7.	<i>Daha</i> (burning sensation)	-	-	+	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-
8.	<i>Sparsh-Asahatwam</i> (Tender Joints)	+	-	+	+	-	-	+	+	-	-	+	-	-	-	-	-	+	-
9.	<i>Bhrishoshmata</i> (raised-temperature)	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.	Symmetrical Peripheral Arthritis	-	-	+	+	-	-	+	+	+	-	+	-	+	-	+	-	+	-
11.	Chronic Inflammatory Arthritis	-	-	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-
12.	Physical Disability	-	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
13.	Symmetrical Distribution of Joints	+	+	+	-	+	-	+	+	+	-	+	-	+	-	+	-	+	-
14.	Cold application reduces pain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.	Hot application reduces pain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
16.	Progressive destruction of soft tissues (deformities)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.	ACR/EULAR-Score ≥6	7	6	7	5	7	5	9	7	7	7	7	6	7	5	7	6	9	6

Table 3: Assessment of Laboratory Parameters

S.No.	ESR (mm/hr)			RA Titre (IU/mL)			C-RP Titre (mg/dL)		
	0 th	7 th	30 th	0 th	7 th	30 th	0 th	7 th	30 th
1.	20	20	20	10.6	3.5	3.9	14.7	12.4	8.9
2.	55	30	25	22.0	4.3	4.0	8.9	14.0	7.7
3.	55	50	50	5.9	5.9	8.2	28.1	5.3	7.2
4.	60	60	50	131.9	159.0	128.6	13.9	13.0	8.2
5.	55	50	30	2.7	1.7	24.1	9.2	9.0	5.8
6.	40	30	20	0.9	0.8	1.9	5.2	5.2	5.1
7.	50	30	30	8.2	9.2	8.4	11.2	6.2	6.4
8.	25	30	20	18.6	6.2	5.8	3.8	5.8	5.2
9.	30	20	20	20.5	18.4	14.8	2.8	2.4	2.4
Mean	43.33	35.56	29.44	24.59	23.22	22.19	10.87	8.14	6.32

Table 4: Assessment of Clinical Parameters

S.No.	DAS-28 (ESR)			DAS-28 (CRP)			VAS (n/10)			HAQ-DI (n/12)		
	0 th	7 th	30 th	0 th	7 th	30 th	0 th	7 th	30 th	0 th	7 th	30 th
1.	5.13	4.86	4.33	4.91	4.66	4.00	6	5	5	1.25	0.75	0.33
2.	6.32	5.72	4.81	5.25	5.27	4.26	7	6	4	2.00	1.58	1.17
3.	7.25	6.62	6.25	6.62	5.45	5.17	9	8	5	1.33	1.17	0.75
4.	7.20	7.02	6.35	6.23	6.02	5.32	7	6	5	1.67	1.42	1.00

5.	7.51	6.99	6.11	6.47	6.01	5.35	6	6	4	0.50	0.50	0.25
6.	5.29	4.97	3.91	4.26	4.16	3.37	6	4	3	0.75	0.58	0.33
7.	5.26	4.52	4.39	4.32	3.75	3.63	6	6	5	1.08	1.00	0.66
8.	5.25	5.32	4.48	4.47	4.55	4.00	8	6	5	1.25	1.08	0.75
9.	5.67	5.21	4.76	4.68	4.47	4.02	9	8	5	1.42	1.25	0.75
Mean	6.03	5.64	4.99	5.19	4.87	4.30	7.11	6.11	4.56	1.25	1.04	0.67

3. OUTCOMES

The outcomes are mentioned in Tables 1, 3, and 4. The trends of change in the mean values of the parameters are illustrated in Figures 1 and 2.

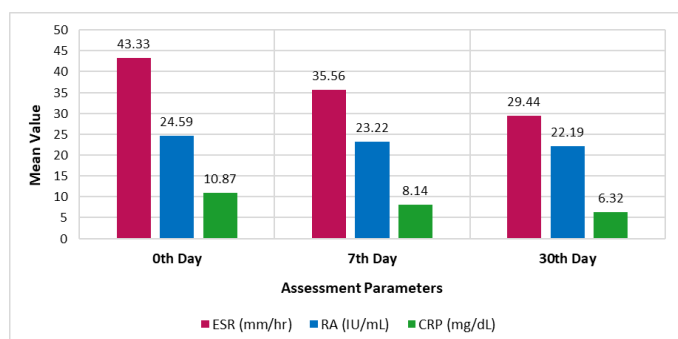


Figure 1: Change in Mean Value of Laboratory Parameters on 0th, 7th & 30th Day

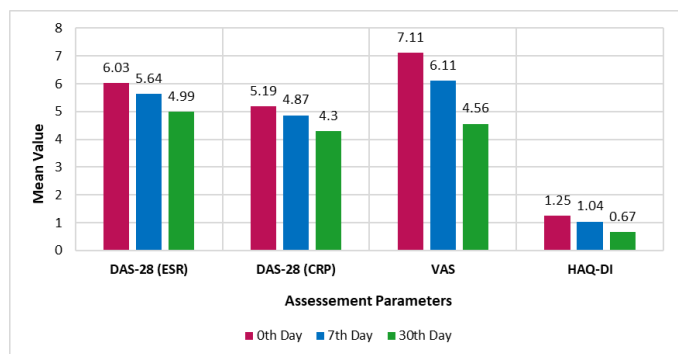


Figure 2: Change in Mean Value of Clinical Parameters on 0th, 7th & 30th Day

4. DISCUSSION

The etiopathogenesis and clinical presentation of RA do not precisely align with a single *Ayurvedic* condition. *Amavata* (rheumatism due to *Ama*, NAMC-Code-EC-6)

and *Vataraktam* (rheumatism associated with *Vata* and *Rakta*, NAMC-Code-ED-8) encompass an understanding of a range of musculoskeletal, rheumatological, and vascular disorders. As per WHO-Standard Terminologies and ICD 11-TM2 Module, *Amavata* and *Vataraktam* describe conditions with polyarthritis and rheumatism, which affects the small joints, gradually extending to the body, leading to pain, numbness, swelling, stiffness and itching in the extremities. The symptomatology of the advanced stage of *Amavata* (either after being devoid of *ama* or due to involvement of *vata* along with *pitta* or *rakta*), shows similarity with the symptomatology of *Vataraktam*, which manifests in *Uttana* (superficial) and *Gambheera* (deep) forms, exhibiting symptoms such as joint-pain, stiffness, swelling, sudden onset of pain, burning sensations, inflammation, and deformities. [3] Wherein, the advanced stage or *Gambheera-Avastha* produces *Anguli-Vakrata* (deformity in phalanges), *Atiruja* (severe pain in the swelling), *Stabdhata* (stiffness), *Kathinyata* (hardness), *Pidaka-Utpatti* (nodule formation), *Mamsakotha* (suppuration of *Mamsa*), etc., which resembles the RA symptomatology. [5] *Ayurveda* describes whole-system etiopathogenesis and management of rheumatic disease afflicting joints. RA is managed as per the *Ayurveda* diagnosis of

Amavata (NAMC-Code EC-6), and *Vataraktam* (NAMC-Code ED-8), considering involvement of *Ama*, *Dhatu* affected, state of disease, etc. [5] This study focuses on managing RA through the lens of *nirama* stage of *Amavata*, which aligns with the *Vataraktam* spectrum, due to involvement of *vata* along with *pitta* or *rakta* at deeper *dhatu*s. Wherein, the treatment for *Uttana* and *Gambheera* stages include major *Shodhana* procedures such as *Raktamokshana*, *Virechana*, and *Basti*. The *Shamana* procedures involve intake of medicated Ghee and oil (*Sarpi-taila-pana*), *Abhyanga* with medicated oils, *Ksheera-paka* intake, and application of *Upanaha* and *Lepa* to pacify symptoms. [6]

Shatapaka Guduchi Taila is based on the formulation *Guduchi Taila*, from *Chakaradutta Vataraktam Chikitsa*, for treating *Vataraktam* and *Kushtha*. [7] It was utilised for its therapeutic and rejuvenating effects in managing *Vataraktam*, as it addresses similar pathogenesis to *nirama awastha* of *Amavata* and RA in both superficial and deep-seated connective tissues. *Bhaishajya Kalpana* has the methodology of *Avartana* (processing oil multiple times) for *Sneha Kalpanas*; thus, the *Guduchi Taila* (oil prepared from *Guduchi* (*Tinospora cordifolia* [Willd.] Miers), *Tila Taila* (*Sesamum indicum* L.) and *Goksheera* (cow milk)) was processed 100 times to achieve *Shatapaka-Avartana*, for enhancing its properties and reducing the dosage for easy administration, i.e., 15 drops quantified to 500 mg at KLE Ayurveda Pharmacy (A GMP Certified Pharmacy) in this study. [8] In addition to standard *chikitsa*, the *sarpi-taila-pana* is used to treat *Gambheera Vataraktam* by addressing *vata*, *rakta*, and *pitta-dushti*. [5] *Shatapaka*

Guduchi Taila is suitable only in the *Nirama Gambheera* stage, as it may worsen the *sama* condition; hence should be cautiously used in early stages of *Amavata* or *amaja Vataraktam* conditions. Since, in this study, the quantity of medicine administered and the condition both favoured each other, the given dose of medicine did not hinder the status of *agni*, and the improvement in parameters predicted a progressive strengthening of *agni* as well. The pharmacological properties of *Shatapaka Guduchi Taila* as a single formulation can be understood based on the properties of its three ingredients, which help in the management of RA. [3]

Therapeutic Action: *Guduchi*, the *sreshtha aushadha* in *Vataraktam* and one of the four *Medhya-Rasayana*, does *sroto-shodhana* and acts as *rakta-shodhaka*, alleviating the *rakta-dushti*. It's *ushna-veerya* pacifies *vata-dushti*, and *madhura-vipaka* combats *pitta* and *vata*, strengthens *kapha*, acting as *tridosha-shamaka*. The *ushna-veerya* of *tila-taila* pacifies *vata*, and *madhura-vipaka* alleviates *rakta-dushti*, normalising *vata* and *rakta*. *Goksheera*, considered a *rasayana*, pacifies *vata-pitta-dushti*, balances *vata* and *rakta*, enhance complexion, and acts as a *vrishya*. These properties make the *Shatapaka Guduchi Taila* an apt formulation to be utilised in *Vataraktam* spectrum. [3] With the presence of flavonoids and alkaloids, *Guduchi* inhibits anti-inflammatory, analgesic and antipyretic activity in conditions like RA by reducing the synthesis of pro-inflammatory cytokines such as IL-1 β , IL-6, TNF- α and IL-17; through the regulation of the JAK/STAT pathway. Sesame oil contains lignans (sesamol, sesamin) and unsaturated fatty acids

(linoleic, oleic, stearic, palmitic acids), which exhibit anti-inflammatory activity by inhibiting cyclooxygenase and lowering prostaglandin levels, where the sesamol enhances immunomodulatory and anti-inflammatory effects, which are beneficial for arthritis patients. Milk-fat-globule-EGF factor 8 protein (MFG-E8), or lactadherin, is a glycoprotein in cow milk that mitigates inflammation and modulates immune responses for tissue homeostasis, which is a crucial component in the pathogenesis of degenerative inflammatory bone diseases such as RA. [2] Taking the patients into consideration, the clinical symptomatology of *Shoola*, *Shotha*, *Shotha-Vridhhi-Hani*, *Stabdhatta*, *Bhrisham-Arti*, *Daha*, *Sparsh-Asahatwam*, *Bhrishoshmata*, along with signs of RA, were significantly improved as noted in Table 2, while the decrease in assessment parameters was also evident as noted in Table 4 and Figure 2, which could be attributed to *Shatapaka Guduchi Taila*.

Rejuvenating Action: *Guduchi* and *Goksheera* are described as *Rasayana* in Ayurvedic texts. Nearly a hundred disorders, including RA, have been described as free-radical-mediated or reactive-oxygen-species (ROS) mediated disorders. *Rasayana* counteract these oxidative stressors, and have been reported to exhibit stronger antioxidant properties than ascorbic acid, α -tocopherol, and probucol. *Guduchi* exhibits antioxidant properties due to its phenolic compound-epicatechin and arabinogalactan-polysaccharide, which inhibit lipid hydroperoxide, superoxide, and hydroxyl radicals, enhancing antioxidant enzyme levels for effective free-radical scavenging. Because of its high flavonoid and phenolic content, sesame oil exhibits enhanced

antioxidant activity, this reduces oxidative stress. Antioxidants in cow milk, including casein, glutathione-peroxidase, catalase, superoxide dismutase, and peptides, prevent autooxidation by donating protons, inhibiting free-radical mechanisms; hence beneficial in RA. [3]

Studies indicate that formulations with *Guduchi*, *Tila Taila*, and *Goksheera* can reduce symptoms of RA and slow disease progression. [3] In this case series, there is a reduction in subjective and objective parameters of RA. The decrease in mean values of ESR, RA, CRP, VAS, HAQ-DI, and DAS-28 ESR & CRP score from high disease activity (>5.1) to moderate activity (3.2-5.2) in all patients shows that *Shatapaka Guduchi Taila* is effective in RA, if utilised under the umbrella of *nirama awastha* of *Amavata* (EC-6) or *Vataraktam* (ED-8). A notable improvement was reported in the chief complaints of *Shoola*, *Shotha*, *Shotha-Vridhhi-Hani*, *Stabdhatta*, *Bhrisham-Arti*, *Daha*, *Sparsh-Asahatwam*, and *Bhrishoshmata*, along with signs of RA, as recorded in Table 1 and Figure 2.

5. CONCLUSION

A total of 9 patients with RA participated in this case series. They were treated with *Shatapaka Guduchi Taila* 15 drops for 30 days, and the outcomes were analysed. The mean values after *Shatapaka Guduchi Taila* administration showed improvements: Mean values of ESR decreased from 43.33 to 29.44, RA from 24.59 to 22.19, CRP from 10.87 to 6.32, and DAS-28 scores dropped from high disease activity (>5.1) to moderate activity (3.2-5.2) in all patients. Additionally, mean VAS scores fell from 7.11 to 4.56 (severe to moderate/mild

pain), and HAQ-DI scores decreased from 1.25 to 0.67, reflecting positive outcomes. The findings in this case series suggest possible benefits of medicine, indicating potential for further exploration and controlled trials utilising *Shatapaka Guduchi Taila* alone or with other medicines in managing RA. No adverse events and side effects were noted in any of the patients.

Declaration of Patient Consent – The authors confirm that they have acquired a patient consent form, in which the patient or caregiver has granted permission for the publication of the case, including accompanying images and other clinical details, in the journal. The patient or caregiver acknowledges that their name and initials will not be disclosed, and sincere attempts will be undertaken to safeguard their identity. However, complete anonymity cannot be assured.

Patient perspective - Though the change in presenting complaints of all patients varied, all patients reported a remarkable reduction in symptoms along with improved status of well-being.

Authors Details:

¹MD Scholar, Department of Kayachikitsa-Rasayana evam Vajikarana Tantra, KLE Academy of Higher Education and Research, Deemed to be University, Shri BMK Ayurveda Mahavidyalaya, Shahpur, Belagavi, Karnataka, India.

²Principal & Professor, Department of Kayachikitsa, KLE Academy of Higher Education and Research, Deemed to be University, Shri BMK Ayurveda Mahavidyalaya, Shahpur, Belagavi, Karnataka, India.

Authors Contribution:

Conceptualization and clinical management: Dr. PS

Data collection and literature search: Dr. PS

Writing – original draft: Dr. PS

Reviewing & editing: Dr. PS, Dr. SKS

Approval of final manuscript: All authors

Acknowledgements: The authors would like to thank the Stakeholders of IMPCOPS Ltd., Chennai, and Dr. N.R. Ravi Nargis, Medical Superintendent, IMPCOPS Ltd., for their assistance in procuring the *Shatapaka Guduchi Taila* medicine.

Conflict Of Interest – The authors declare no conflicts of interest.

Source of Support – The authors declare no source of support.

Additional Information:

Authors can order reprints (print copies) of their articles by visiting:

<https://www.akinik.com/products/2281/journal-of-ayurveda-and-holistic-medicine-jahm>

Publisher's Note:

Atreya Ayurveda Publications remains neutral with regard to jurisdictional claims in published maps, institutional affiliations, and territorial designations. The publisher does not take any position concerning legal status of countries, territories, or borders shown on maps or mentioned in institutional affiliations.

REFERENCES:

1. Harris ED Jr. Rheumatoid arthritis. Pathophysiology and implications for therapy [published correction appears in N Engl J Med 1990 Oct 4;323(14):996]. N Engl J Med. 1990;322(18):1277-1289. Available from: <https://doi.org/10.1056/NEJM199005033221805>
2. Kurade, S. T., Wasedar, V., Naik, S. A., Tukanatti, P. B., Davalbhai, S., & Jambagi, R. V. (2025). Safety practice of rasaoushadhis in Amavata Bridging with renal parameters- A case series : Amavata. *Journal of Ayurveda and Holistic Medicine (JAHM)*, 13(5), 146-154. <https://doi.org/10.70066/jahm.v13i5.1989>
3. Sharma, Pankaj; Shetty, Suhas Kumar. Therapeutic and rejuvenating potential of Guduchi Taila in the purview of rheumatoid arthritis: A review. *Journal of Drug Research in Ayurvedic Sciences* 9(Suppl 2):p S184-S191, December 2024. Available from: https://journals.lww.com/jdra/fulltext/2024/09002/therapeutic_and_rejuvenating_potential_of_guduchi.9.aspx
4. Yadavaji Trikamaji (editor). Charaka Samhita of Charaka, Chikitsasthana, chapter 29, verse no. 19-23. 3rd edition, Bombay; Nirnaya Sagar Press; 1941; 628.
5. Goel S, Khanduri S, Ahmad A, Kumar A, Singh R, Chandra SR, et al. Efficacy of ayurvedic interventions in rheumatoid arthritis: Protocol for systematic review. *J Res Ayurv Sci* 2019;3:12-6. Available from: <https://www.jaypeedigital.com/doi/JRAS/pdf/10.5005/jras-10064-0071>

6. Yadavaji Trikamaji (editor). Charaka Samhita of Charaka, Chikitsasthana, chapter 29, verse no. 42-48. 3rd edition, Bombay; Nirnaya Sagar Press; 1941; 630.
7. Jagannathasharma Bajpeyee (editor). Chakradutta of Chakrapani Datta, Vataraktadhikara, chapter 23, verse 19-20. 3rd edition, Bombay; Shri Laxmi Venkateshwar Steam Press; 1994; 127.
8. Wele A, Gadgil SS. Recapture of the concept of Sneha Aavartana to prepare Siddha Sneha. AAM 2020;9:291-301. Available from: <https://aamjournal.in/?mno=75917>