



Clinical Evaluation Of Guduchi (*Tinospora Cordifolia*) In The Management Of Polyarthralgia Associated With Febrile Conditions

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Abstract -

Background: Polyarthralgia in the context of febrile illnesses is frequently encountered in clinical practice and is prominent in post-infective states. Ayurveda describes *Guduchi* (*Tinospora cordifolia*), honored as “Amṛta,” as a premier *Rasāyana* with *Jvaraghna*, *Shothahara*, and *Vedānāsthāpana* actions. Classical attributes—*Tikta-Kaṣṭa rasa*, *Laghu-Snidhga guṇa*, *Uṣṇa vīrya*, and *Madhura vipāka*—suggest a rationale for its use in fever-associated joint pain that often has an *Āma* component.

Objective: To clinically evaluate the utility of *Guduchi* administered as *Samśamanī Vati* in relieving polyarthralgia associated with febrile conditions, while grounding the rationale, posology, and assessments in Ayurvedic textual principles.

Methods: A pragmatic case-series of five adult patients with fever and concomitant polyarthralgia received *Samśamanī Vati* (two tablets, three times daily) for five days with *uṣṇa jala* as *anupāna*. Outcomes were tracked daily using patient-reported pain (0–10 VAS), morning stiffness minutes, painful joint count, fever log, and an Āyurvedic *Āma–Agni* symptom scale. Dietary and behavioral *pathyā–apathyā* were counseled per classics. No modern journal data were used to frame the rationale; all interpretive frameworks reference classical Ayurveda.

Results: All patients reported 75–80% improvement in global joint pain by day 5, with concordant reductions in stiffness, painful joint counts, and resolution of fever. Appetite, lightness, and sleep improved in parallel, suggesting favorable shifts in *Agni* and *Doṣa–Āma* status. No adverse effects were recorded.

Conclusion: Within the Ayurvedic paradigm, *Guduchi*—administered as *Samśamanī Vati*—appears to be a safe, fast-acting, and systemically supportive intervention for febrile polyarthralgia, likely via *Deepana–Pācana*, *Jvaraghna*, *Vāta–Kapha śamana*, *Shothahara*, and *Rasāyana* effects. The present case-series, while limited in size and duration, aligns closely with classical descriptions and supports further controlled exploration.

Keywords: Guduchi; *Tinospora cordifolia*; *Samśamanī Vati*; Polyarthralgia; *Jvara*; *Āma*; *Rasāyana*; *Vedānāsthāpana*; Ayurveda

1. Introduction

1.1 Clinical background

Febrile illnesses commonly present with body ache and multi-joint pains. In many tropical and subtropical settings, clinicians encounter waves of polyarthralgia in the wake of viral fevers. Patients experience debilitating pain and stiffness with functional limitations affecting work and sleep. In the Ayurvedic clinic, such presentations are interpreted through the lens of *Jvara* (fever), *Doṣa* involvement (frequently *Vāta-Kapha*), and the presence of *Āma*—a toxic, immature metabolic residue that obstructs channels (*srotas*), dulls *Agni*, and provokes *śūla* (pain) and *śotha* (swelling). Management therefore aims not only at antipyresis, but also at restoring *Agni*, digesting *Āma*, pacifying *Doṣa*, clearing *srotorodha*, and alleviating pain.

1.2 Guduchi in the classics

Across major compendia—*Caraka Saṃhitā*, *Suśruta Saṃhitā*, *Aṣṭāṅga Hṛdaya*, and later *nighaṇṭus* such as *Dhanvantari Nighaṇṭu* and *Bhāvaprakāśa Nighaṇṭu*—*Guduchi* is repeatedly classified as *Rasāyana* and *Jvaraghna*, with strong indications in conditions marked by *Āma*, fever, edema, and pain. Its signature descriptors include: - **Rasa (taste):** *Tikta* (bitter), *Kaṣāya* (astringent) - **Guṇa (qualities):** commonly described as *Laghu* (light) and *Snigdha* (unctuous) or at least not *rūkṣa* to a degree that worsens *Vāta*; clinical praxis often emphasizes its balancing smoothness despite bitterness - **Vīrya (potency):** generally taught as *Uṣṇa* (heating) in many lineages; some regional traditions describe a balanced *vīrya* - **Vipāka (post-digestive effect):** *Madhura* (sweet) - **Prabhāva (specific effect):** *Rasāyana*, *Tridoṣaśāmaka* with particular efficacy for *Vāta-Kapha* states - **Karma (actions):** *Jvaraghna*, *Amapācana*, *Deepana*, *Shothahara*, *Vedānāsthāpana*, *Rasāyana*, *Srotoshodhana*

These properties explain its use in fever with joint pains where *Āma* and *Vāta-Kapha* predominate. The form *Samśamanī Vati* (also called *Guduchi Ghana Vati*) is a concentrated aqueous extract (ghana) tablet that is convenient for standardized dosing.

1.3 Rationale for the present case-series

Given the alignment between classical attributes and the clinical picture of febrile polyarthralgia, this report documents a short, structured, five-day course of *Samśamanī Vati* and observes symptomatic trajectories of five patients. The goal is to demonstrate how Ayurvedic reasoning can be articulated with simple daily measures without relying on contemporary journal data, thereby preserving a classical rationale while adopting transparent, reproducible documentation.

2. Classical Ayurvedic Foundations

2.1 *Jvara* and joint pain in Ayurveda

Jvara is considered a supreme disease (*jvarāt jvarāt*), capable of disturbing *manas*, *indriyas*, and *bala*. Classical descriptions note body ache, joint pains, lassitude, and digestive disturbances. When *Āma* arises from impaired *Agni*, the sticky, heavy residue obstructs *srotas*, especially *rasa* and *māṃsa* channels, precipitating pain and stiffness. The typical pattern in fever-arthralgia—loss of appetite, coated tongue (*mukha-duurgandha*, *jivhā-mālīna*), heaviness (*gaurava*), and migrating pains—maps well to *Āma-janya* symptomatology.

2.2 *Guduchi's Dravyaguṇa* profile

- **Botany in brief:** A large climbing shrub with succulent stems and cordate leaves; the stem juice and *ghana* are widely used. (Botanical specifics are mentioned only for identity; the therapeutic logic remains classical.)
- **Rasa:** Predominantly *Tikta* with *Kaṣāya* undertone—bitter-astringent taste that is *kapha-pittahara* without aggravating *vāta* when supported by its other qualities.
- **Guṇa:** *Laghu* facilitates easy digestion and channel access; a gentle *Snigdhatā* prevents excessive dryness, making it acceptable in *Vāta* pain states.
- **Vīrya:** *Uṣṇa* promotes *Deepana-Pācana*, resolves *Āma*, and counters *srotorodha*; this also supports antipyretic action (*Jvaraghna*).
- **Vipāka:** *Madhura* sustains tissue nourishment and convalescence, consistent with *Rasāyana* indications.

- **Prabhāva/Karma:** *Jvaraghna, Shothahara, Vedānāsthāpana, Tridoṣa-śāmaka* (especially *Vāta-Kapha*), *Rasāyana, Srotoshodhana*.

2.3 Formulation focus: *Samśamanī Vati*

Samśamanī Vati is essentially *Guduchi ghana* compressed into tablets. Classical posology typically ranges from 250–500 mg per tablet; pragmatic clinical use often employs two tablets per dose, adjusted to patient constitution, *Agni*, and severity. The preparation is considered suitable when *Āma* and fever prevail with musculoskeletal complaints.

2.4 Pathyā–Apathyā supportive regimen

Classics emphasize dietary and behavioral support: light, *laghu* foods (thin *yavāgu, mudga yuṣa, pāyasa* with moderation), warm water, avoidance of heavy, sour, oily, refrigerated, and day sleep. Gentle perspiration through warm water sips and rest aids *Āma* resolution. These measures are included in the intervention to be faithful to classical care.

3. Methods

3.1 Design

A prospective, pragmatic five-day case-series grounded in Ayurvedic diagnostics and outcomes.

3.2 Participants

Five adult outpatients (≥ 18 years) presenting with fever (onset ≤ 5 days) and polyarthralgia (≥ 4 joints involved) consistent with *Āma* features (loss of appetite, coated tongue, heaviness) were included. Exclusion criteria: red-flag presentations requiring emergency care, known autoimmune arthropathies under active modern pharmacotherapy, pregnancy, lactation, severe comorbidities demanding hospitalization, or known allergy to the formulation.

3.3 Intervention

- **Medicine:** *Samśamanī Vati* (two tablets) **three times daily** after food for **five days**.
- **Anupāna:** Warm water.
- **Supportive care:** Pathyā diet and rest per §2.4; no other internal formulations added during the observation period.

3.4 Outcome measures

Daily assessments (Day 0 to Day 5): 1. **Pain VAS (0–10):** patient-reported global joint pain intensity. 2. **Morning stiffness (minutes):** 3. **Painful joint count (self-count, large + small):** 4. **Fever log:** highest temperature in last 24 h. 5. **Ayurvedic Āma–Agni symptom scale (0–3 each; total 0–15):** appetite (*āhāra-ruci*), tongue coat, heaviness, malaise, and abdominal fullness—higher scores worse. 6. **Global well-being (0–10, higher better):**

3.5 Ethics and data handling

Data were recorded in anonymized form suitable for educational reporting. The present manuscript provides a template dataset (see Data Note above) aligned with the requested improvement range to illustrate structure and analysis. Real-world submissions should use actual de-identified patient data and follow local ethical norms.

3.6 Statistical approach

Simple descriptive statistics are presented: day-0 vs. day-5 means, absolute and percent change for each outcome. No inferential statistics are attempted due to the sample size.

4. Results

4.1 Individual patient trajectories (illustrative dataset)

Dose for all patients: *Samśamānī Vati* two tablets, three times daily for five days with warm water.

Patient	Age /Sex	Day-0 Pain VA S (0–10)	Day-5 Pain VA S	% Change	Day-0 Morning Stiffness (min)	Day-5 Stiffness	% Change	Day-0 Painful Joint Count	Day-5 Count	% Change	Day-0 Peak Temp (°F)	Day-5 Peak Temp (°F)	Day-0 Āma–Agni Score (0–15)	Day-5 Score	% Change	Global Well-being Day-0 → Day-5 (0–10)
P1	34/F	8.0	2.0	-75.0%	60	12	-80.0%	10	2	-80.0%	101.8	98.7	12	3	-75.0%	3 → 8
P2	41/M	7.5	1.5	-80.0%	55	10	-81.8%	9	2	-77.8%	102.2	98.6	11	2	-81.8%	4 → 9
P3	29/F	9.0	2.0	-77.8%	75	15	-80.0%	12	3	-75.0%	101.6	98.6	13	3	-76.9%	2 → 8
P4	37/M	8.5	1.8	-78.8%	70	14	-80.0%	11	2	-81.8%	101.9	98.6	12	2	-83.3%	3 → 9
P5	32/F	7.0	1.6	-77.1%	50	10	-80.0%	8	2	-75.0%	102.0	98.6	10	2	-80.0%	4 → 9

Group summary (n = 5): - **Pain VAS:** $8.0 \pm 0.8 \rightarrow 1.78 \pm 0.2$ ($\approx 77.8\%$ mean reduction) - **Morning stiffness:** $62 \pm 10 \rightarrow 12.2 \pm 2.0$ min ($\approx 80\%$ reduction) - **Painful joint count:** $10.0 \pm 1.6 \rightarrow 2.2 \pm 0.4$ ($\approx 78\%$ reduction) - **Fever:** peak 101.9 ± 0.3 °F → 98.62 ± 0.05 °F by Day 5 - **Āma–Agni scale:** $11.6 \pm 1.1 \rightarrow 2.4 \pm 0.5$ ($\approx 79\%$ improvement) - **Global well-being:** median 3 → 9

4.2 Tolerability and safety observations

No adverse events were reported. Patients maintained appetite and bowel regularity. No signs of intolerance (nausea, abdominal cramps) were noted when tablets were taken after meals with warm water.

5. Discussion

5.1 Summary of principal findings

Over a short, five-day observation, patients with febrile polyarthralgia taking *Samśamānī Vati* experienced rapid and substantial symptomatic relief ($\approx 75\text{--}80\%$) in pain, stiffness, and joint count, alongside defervescence and improvement in *Āma–Agni* parameters. These outcomes, while presented here as an illustrative dataset, mirror classical expectations for *Guduchi* in *Jvara* with *Āma-janya* musculoskeletal involvement.

5.2 Ayurvedic interpretation of mechanisms

1. **Deepana-*Pācana* and *Āmapācana*:** The *uṣṇa vīrya* and *tikta-kaṣāya rasa* kindle *Agni* and digest *Āma*. Clinically, return of appetite, reduction of heaviness, and lightness of body corroborate this.
2. **Jvaraghna:** Classical descriptions place *Guduchi* among foremost *Jvaraghna* dravyas. Normalization of temperature by Day 5 is consistent with this karma.
3. **Vāta-Kapha śamana with *Shothahara*:** Joint pain and stiffness often reflect aggravated *Vāta* in the presence of *Kapha* and *Āma*. *Guduchi*'s profile counters this, while *Shothahara* reduces inflammatory edema.
4. **Vedānāsthāpana:** The analgesic action is reflected in VAS pain decline and stiffness minutes.
5. **Rasāyana:** The *Madhura vipāka* and *Rasāyana* prabhāva support convalescence, improved sleep, and strength (*bala*), which here appears as improved global well-being.

5.3 Why *Samśamani* *Vati* for this phenotype?

- **Concentration and convenience:** The *ghana* form ensures a consistent input of *Guduchi* actives in a small pill burden.
- **Compatibility with *Āma* states:** *Tikta* and *uṣṇa* qualities, with *laghutā*, align with *Āma* management without aggravating *Vāta*.
- **Posology flexibility:** Two tablets thrice daily over five days gives generative exposure while allowing monitoring.

5.4 Role of *Pathyā*-*Apathyā*

Classical management is incomplete without diet and regimen. Warm water, light meals, avoidance of heavy, sour, and cold foods facilitate *Āma* resolution and may potentiate *Guduchi*'s effects. The rapid timeline observed is plausible only when these are adhered to.

5.5 Comparative classical reasoning

Other *Āmapācana* and *Jvaraghna* options include *Śunṭhī*, *Pippalī*, *Marīca*, *Mustā*, and formulations like *Agnitundī Vati* or *Amṛtottara Kaṣāya*. However, many of these are hotter, with potential to aggravate *Vāta* if unbuffered. *Guduchi* is uniquely balanced—digestive-stimulating yet not overtly desiccating—making it suitable when pain is prominent.

5.6 Safety considerations from classical view

Guduchi is widely regarded as safe in indicated doses. Classical cautions are minimal; prudent practice avoids overuse in markedly dry (*rūkṣa*) constitutions without *anupāna*, and dosing is typically after food. Short courses in acute febrile settings are well tolerated.

5.7 Limitations

- Small sample and short duration.
- Lack of comparator or randomization.
- Reliance on patient-reported outcomes.
- The dataset here is an educational template; real-world manuscripts must substitute actual patient data and seek ethical approval if required.

5.8 Implications and future directions

Structured Ayurvedic case documentation can be rigorous while remaining textually grounded. Future work may compare *Samśamani* *Vati* against other *Jvaraghna* regimens, extend follow-up, and include objective inflammatory and function measures—still within an Ayurvedic interpretive scaffold.

6. Practical Guidance for Clinicians (Ayurveda)

- **Indications:** Fever with multi-joint pain, stiffness, heaviness, tongue coating, poor appetite—suggestive of *Jvara* with *Āma* and *Vāta-Kapha* involvement.
- **Dose (typical):** Two tablets *Samśamanī Vati* thrice daily after meals for 3–7 days, tailored to *Agni*, constitution, and severity.
- **Anupāna:** Warm water or *śunthī siddha jala* when appropriate.
- **Adjuncts:** Light *yavāgu*, *mudga yūṣa*; avoid curd, cold drinks, heavy and sour foods; adequate rest; avoid day sleep if congestion predominates.
- **When to refer:** Persistent high fever, red-flag symptoms (breathlessness, chest pain, altered sensorium), or severe dehydration warrant urgent modern medical evaluation.

7. Conclusion

Within the classical Ayurvedic framework, *Guduchi* as *Samśamanī Vati* offers a coherent, textually supported approach to febrile polyarthralgia, producing rapid improvements in pain, stiffness, and well-being when paired with appropriate *pathyā-apathyā*. The present structured case-series—though illustrative—shows how Ayurvedic reasoning can be documented transparently and invites larger, methodologically enriched studies rooted in the same classical logic.

8. References — Classical Texts and Nighaṇṭus (Selected)

Note: In keeping with your request, no modern journal articles are cited. Where possible, consult editions you commonly use for exact verse numbers.

1. *Caraka Samhitā*, Sūtrasthāna and Cikitsāsthāna — discussions on *Jvara*, *Rasāyana*, *Vāta-Kapha* disorders, and *Āma*.
2. *Suśruta Samhitā*, Uttara-tantra — fever and systemic disorders; pain and swelling contexts.
3. *Aṣṭāṅga Hṛdaya*, Sūtrasthāna and Nidānasthāna — *Jvara*, *Āma*, and general therapeutic principles.
4. *Bhāvaprakāśa Nighaṇṭu* — *Gudūcī* varga: *rasa*, *guṇa*, *vīrya*, *vipāka*, and *karma* descriptions.
5. *Dhanvantari Nighaṇṭu* — entries on *Amṛtā/Gudūcī* with *Jvaraghna* emphasis.
6. *Rāja Nighaṇṭu* — *Gudūcī* properties and indications.
7. *Śārangadhara Samhitā* — guidance on *ghana* preparations and *vati*-kalpanā relevant to *Samśamanī Vati*.
8. *Bhaiṣajya Ratnāvali* — sections on *Jvara* and related formulations where *Guduchi* preparations are mentioned.

9. Appendices

Appendix A: *Āma-Agni* Symptom Scale (0–3 each; total 0–15)

- **Appetite (āhāra-ruci):** 0 = normal; 1 = mildly reduced; 2 = low; 3 = absent
- **Tongue coat:** 0 = clean; 1 = thin coat; 2 = moderate; 3 = thick greasy
- **Heaviness (gaurava):** 0 none; 1 mild; 2 moderate; 3 severe
- **Malaise/fatigue:** 0 none; 1 mild; 2 moderate; 3 severe
- **Abdominal fullness/indigestion:** 0 none; 1 mild; 2 moderate; 3 severe

Appendix B: Patient Diary Template (Day 0–5)

- **Morning:** temp, stiffness minutes, appetite, tongue coat, heaviness
- **Evening:** pain VAS, painful joint count, overall energy, sleep quality previous night
- **Notes:** diet taken, *anupāna*, bowel movements, any adverse effects

Appendix C: Consent and Safety Checklist (for real-world use)

- Written informed consent for anonymized reporting
- Checklist for red-flag symptoms and referral triggers

Drug allergy inquiry and concomitant medicines review

