

# EXPLORING THE ROLE OF AYURVEDA IN MANAGING POST - CHIKUNGUNYA ARTHRALGIA – A CASE STUDY

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## Abstract

The chikungunya virus is a disease transmitted by mosquitoes, leading to acute symptoms, particularly a high fever and severe joint pain that can be debilitating. In many cases, this intense arthritis can last for weeks, months, or even years, resulting in a condition known as Chronic Chikungunya Arthritis. While modern medicine provides symptomatic relief, there is no specific cure for the virus. *Ayurveda* identifies a similar condition called *Ama Vata*, which is characterized by joint pain and stiffness due to an imbalance in the *Vata Dosha* and the buildup of *Ama*. This clinical similarity suggests that *Ayurvedic* treatments may be beneficial. In this study, a 38-year-old woman presented with pain in multiple small joints, swelling, fatigue, and stiffness, which significantly affected her daily activities and mobility. A comprehensive *Ayurvedic* treatment plan was developed based on her clinical condition and the underlying causes. This plan included internal medications to help digest *Ama* and balance *Vata*, as well as external therapies like *Ruksha Sweda* to relieve local pain and stiffness. Additionally, the

treatment emphasized dietary and lifestyle changes to prevent further *Ama* accumulation and to strengthen the affected tissues. Regular clinical evaluations showed significant improvements, including reduced joint pain and swelling, less morning stiffness, and better mobility. The patient was able to return to daily activities that she had previously been unable to perform. This case study highlights the effectiveness of *Ayurvedic* treatment in managing joint pain and other debilitating symptoms following chikungunya infection.

**Keywords:** Chikungunya, Joint pains, *Ama Vata*, *Ama Pachana*

## Introduction

Chikungunya is a viral illness spread through the bite of an infected *Aedes aegypti* mosquito<sup>1</sup>. The name comes from the word "kungunyala," which means "that which bends up," describing the hunched posture of patients due to arthritic pain<sup>2</sup>. This disease is commonly found in certain regions of Africa and Asia, with occasional outbreaks in

other areas<sup>3</sup>. A significant outbreak occurred in 2004 in the Indian Ocean region, impacting individuals in Sri Lanka, the Maldives, Mauritius, and parts of India<sup>4</sup>.

Typically, after an incubation period of 3 to 7 days, the disease presents with a sudden onset of fever (over 40°C or 104°F), intense joint pain that causes patients to bend over, migratory polyarthrititis affecting small joints, chills, and severe headaches. Other frequent symptoms include muscle pain, loss of appetite, nausea, vomiting, abdominal discomfort, fatigue, rashes, petechiae, and eye-related issues like conjunctival suffusion and mild sensitivity to light<sup>5</sup>. While most patients recover completely, some may experience debilitating joint pain that can last for weeks or even months, and in certain cases, pain may persist for years. According to the Centre for Disease Control and Prevention (CDC), while most infected individuals show symptoms, between 3% and 28% may remain asymptomatic.

To confirm a chikungunya diagnosis, various tests can be conducted. Antibodies to the chikungunya virus typically develop towards the end of the first week of the illness.

For early detection (within the first week):

1. Reverse Transcriptase-Polymerase Chain Reaction (RT-PCR): This test is the most reliable for early diagnosis as it directly detects the virus's RNA

in the bloodstream, particularly effective during the first week or two when the virus is actively replicating.

2. Antigen detection: This method identifies viral proteins and is less frequently used but can be beneficial in some cases.

For later detection (after the first week):

1. IgM antibody test: IgM antibodies usually become detectable about a week after symptoms start, and a positive result indicates a recent infection.

2. IgG antibody test: This test identifies IgG antibodies, which appear later than IgM and can indicate a past infection or immunity.

Other diagnostic methods include rapid diagnostic tests, ELISA tests, and neutralizing antibody testing<sup>6</sup>.

Treatment focuses on alleviating symptoms, primarily through pain relief with medications such as ibuprofen, naproxen, aceclofenac, or paracetamol, while aspirin should be avoided. Chloroquine phosphate at a dosage of 250 mg per day has also shown effectiveness<sup>7</sup>.

From an *Ayurvedic* standpoint, the clinical symptoms of arthritis caused by Chikungunya closely resemble those of *Ama Vata*. The term "*Ama Vata*" comes from the Sanskrit words "*Ama*" and "*Vata*." In this condition, an imbalance in the *Vata*

dosha combines with *Ama*, which arises from the consumption of incompatible foods (*Viruddha Ahara*), unhealthy lifestyle choices (*Viruddha Chesta*), prolonged poor digestion (*Mandagni*), a sedentary lifestyle (*Nischala*), heavy meals followed by exercise (*Snigdhahojana, vyayama*)<sup>8</sup>.

This combination results in the production of undigested toxins that circulate in the body and settle in areas associated with *Kapha*, such as the joints (*Sandhi*) and the sacral region (*Trika*). The primary symptoms of *Ama Vata* include widespread pain (*Vedana*), stiffness (*Stabdhatva*), swelling (*Shotha*), and tenderness in the joints, especially in the wrists, fingers, ankles, knees, and elbows. Additional symptoms may include general weakness (*Alasya*), heaviness (*Gauravam*), poor appetite (*Aruchi*), thirst (*Daha*), lethargy (loss of enthusiasm), fever (*Jwara*), and indigestion (*Agnimandhya*).

*Chakrapani Dutta* outlines a six-stage treatment process for *Ama Vata*<sup>9</sup>, which includes: 1. *Langhana* (fasting), 2. *Svedana* (sudation therapy), 3. Use of herbs with *Tikta Katu rasa* (bitter and pungent tastes) and digestive properties, 4. *Virechana* (purgation), 5. *Snehapana* (oleation) and 6. *Vasti* (enema). *Yogaraj Nidhana* and *Bhavamishra* also adhere to these treatment steps. The management of *Ama Vata* involves dry sweating therapy (*Ruksha Sveda*), hot poultices (*Valuka Pottali*), and bandaging (*Upanaha*) without oil, as well as the use of fermented rice water (*Dhanyamla Dhara*).

Common herbs and formulations used include *Rasna* (*Pluchea lanceolata*), *Guduchi* (*Tinospora cordifolia*), *Triphala*, *Ajamodadi Churnam*, and *Simhanad Guggulu*.

### Case study

38-year-old female presenting with pain and swelling in bilateral small joints of wrists, fingers, ankles, toes and pain in the sternocostal joints for 30 days. Associated with stiffness in the joints, especially in the mornings, unable to keep feet on the ground soon after waking up due to pain in the soles, poor appetite, poor digestion, fatigue and lethargy.

Patient was apparently well prior to this. A month back, patient abruptly developed severe fever (103°F) with chills, headache, pain and swelling in the joints associated with nausea, vomiting, muscle pain all over the body and generalised weakness. Consulted an allopathy doctor and was admitted in the hospital for a period of 10 days. During the course of hospital stay, the patient was treated symptomatically with antipyretics, painkillers, fluids, anti-inflammatory drugs and anti-emetics. Patient got discharged with relief from fever, GIT issues, and decrease in pain by 20%. As the patient had difficulty in performing daily activities, consulted us for further treatment.

Patient had a skin allergy on back of the hands a year back. Took Ayurvedic treatment and got relieved.

**Examination**

Table 1:

Examination:	Personnel history:	Physical examination:
GC: fair	Non vegetarian,	Musculoskeletal
Pulse: 90/min	Easily cries for small things	Bulk – normal in both LL & UL
BP: 120/70 mmHg	Emotionally dependent,	Tone - hypertonic in both LL
Temperature: 99 °F	Teacher by profession – long standing and improper dietary habits and timings	Power - UL-3/5, LL-3/5
Spo2: 99		Reflexes – normal
Respiratory rate:22/min		Coordination - poor due to pain & stiffness
Pallor: present	Family history:	Gait - stooped posture (bent over gait)
Icterus: absent		Rigidity – present in all limbs
Height:154cm	Father – diabetes & hypertensive	Joints – swelling +, warm on touch+, tenderness present+
Weight :65 kg		CNS: patient is conscious, oriented
MC: regular 4-5days/28 days cycle, dysmenorrhea + for one day. Normal flow of blood. Attained menarche at the age of 13years.		

*Astha Vidha Pariksha:**Nadi:*90/min, feeble pulse*Mala:* passing hard stools*Mutra:* dark yellow coloured urine*Jihva:* Sama*Shabda:* Avara*Sparsha:* Ushna. No rash on body*Drik:* burning sensation and mild photophobia*Akruthi:* Avara*Dasa vidha pariksha:**Prakriti:* VataPittaja*Vikriti:* Prakritivisam samvet*Dosha:* Vata, Kapha *Dushya:* Rasa, Rakta,*Mamsa, Asthi dhatu, Shleshmaka Kapha**Adhisthana:* Sandhi, Snayu, Sarva, Sareera pesi,*Amashaya**Srotodushti:* Sanga, Vimargagamana*Saara:* Madhyama*Samhanana:* Madhyama*Pramana:* Madhyama

*Satmya: Avara*

*Satva: Avara*

*Ahara Shakti: Mandagni*

*Vyayama Shakti: Avara*

### Treatment:

1. *Deepana Pachana* for 7 days
  - a. *Agnitundi vati* 250mg TID before food
  - b. *Chitrakadi vati* 250 mg TID after food

- c. *Pathyadi choorna* 5gm at bed time with hot water after food.
- d. *Mridushodana* - On day 7 night – two tablet *Abhayadi modakam*
- e. Day 8: had 6 Vegas, on *Samsarjana krama*.i.e. Khichidi for one day.
2. External therapies from day 9:
  - a. *Sarvanga Abhyanga* – with *maha Vishagarbha Tailam* for 45min \*15 days
  - b. *Valuka Swedam* – \* 15 days
3. *Samshamana* treatment (from day 16)

Table 2:

S. No	Drug	Dose	Frequency	Anupana	Before/after food
1.	<i>Rasnasaptaka Kashaya</i>	50ml	BID	water	before
2.	<i>Sinduvata eranda taila</i>	5ml	BID	Along with above <i>Kashaya</i>	before
3.	<i>Agnitundi vati</i>	250mg	TID	Water	After
4.	<i>KM lepa</i>	For external application.			

*Pathya*: barley, horse gram, red rice, *shyamaka*, barnyard millet, Kodo millet, drumstick, bitter gourd, ginger, hot water, garlic processed in buttermilk,

*Apathya*: curds, fish, jaggery, milk, flour prepared from black gram, forcibly controlling the natural body urges, habit of keeping awake throughout the night, irregular eating habits, foods which are heavy to digest<sup>10</sup>.

### Result:

Table 3:

Date	Daily activities
Day 1 of treatment	pain and swelling in bilateral small joints of wrists, fingers, ankles, toes and pain in the sternocostal joints, stiffness in the joints, especially in the mornings, unable to keep feet on the ground soon after waking up due to pain in the soles, poor appetite, poor digestion, fatigue and lethargy.
Day 9 after <i>Mridu</i>	Appetite and digestion improved.

<i>Shodana</i>	
Day 20 after completion of therapies	Pain and swelling in toes and fingers reduced, stiffness reduced completely
Day 31 while continuing internal medication	No fatigue and general strength improved
Day 76 with internal medication	Able to keep feet on ground after waking up and pain in sternocostal joints reduced.

Table 4 and 5:

	Before treatment	After treatment
Tone	Hypertonic	Normal
Power	3/5	5/5
Coordination	Poor	Normal
Gait	Bent over gait	Normal

S.no	Pain- Visual analog scale	Before treatment	After treatment
1.	pain in sternocostal joints	9	1
2.	Pain in soles	8	1
3.	Pain in wrist joints	7	0
4.	Pain in finger joints	7	0
5.	Pain in ankle joints	8	1
6.	Pain in toe joints	6	0
0: No pain, 1-3: mild pain, 4-6: moderate pain, 7-9: severe pain, 10: worst pain possible			





## Discussion:

There is no direct reference of chikungunya in our classics. The symptoms mainly pain and swelling especially in the small joints, stiffness in the morning, poor appetite and indigestion were strikingly correlating to *Ama Vata*. Treatment for *Ama Vata* (rheumatoid arthritis) involves addressing the root causes based on the principles of *Dosha Dushya*, which primarily involve vitiated *Vata* and the accumulation of *Ama*. The Ayurvedic management was therefore planned with a focus on *Aam Pachana*, with drugs like *Agnitundi Vati*, *Chitrakadi Vati* and *Pathyadi Choorna*, *Mridu Shodana* with *Abhyadi Modhak* and *Vata Samana* with *Snehan*, *Swedan* and *Rasna Saptaka Kashaya*. As *Nitya Sodhana* or *Virechana* is beneficial for *Ama Vata*, *Sindhuvara Eranda Taila* is opted. The patient who basically started with *Mandagni* and *Vibanda* had shown improvement in digestion and regular evacuation of bowels, which eventually helped in relieving good amount of pain. The other half was addressed by *Vata Shamana* drugs and procedures along with *Nitya Virechana* drugs giving apparent relief in the condition.

1. *Agnitundi vati* - is a unique formulation having *Shoolaghna & Vatahara* properties. It has *Deepana*, *Pachana*, *Vaatahara* and *Shoolaghna* properties<sup>11</sup>.
2. *Chirakadi vati* - is efficacious for the metabolic transformation of *Ama* (for *Pachana of Ama*). It also stimulates *Agni*, improves digestion

and metabolism<sup>12</sup>

3. *Pathyadi Choorna* - is a combination of *Haritaki*, *Shunti* and *Ajamoda* in equal proportions. All the drugs are predominantly *Ushna Virya* and have *Agni Deepana* and *Ama Pachana* properties which are required for the management of *Ama Vata*. *Haritaki* is also *Anulomana*, *Lekhana*, *Deepana*, *Pachana*, *Shothahara* and has *Rasayana* action.<sup>13</sup>
4. *Mridu Shodana*: *Shodana* is a method of eliminating the vitiated doshas from the body to pacify the disease<sup>14</sup>.
5. *Rasna Saptaka Kashaya* - is useful in *Ama Vata*, low back ache muscle stiffness, cramps in thighs. It works well in post viral fever, where the patient complains of body, muscle and joint pains. Excellent anti-inflammatory and anti-analgesic medicine. It promotes strength of bones and joints<sup>15</sup>.
6. *Sindhuvara Eranda Taila* - Effectively reduces pain, stiffness, and enhances flexibility and mobility, making it easier to move and perform daily activities. Natural Anti-Inflammatory.  
Helps reduce inflammation in the back and spine, targeting the root causes of pain. It also has laxative property. Supports Muscle Health – Nourishes muscles and joints, preventing further strain and discomfort.
7. *KM Lepam* –it is an *Ayurvedic* balm designed to alleviate pain, such as

headaches, muscle and joint discomfort, and inflammation. It helps reduce stiffness associated with conditions like frozen shoulder, and soothes acute muscle cramps and sprains. This balm is applied externally and includes ingredients like aloe vera, which has a soothing effect, and *Shallaki*, recognized for its anti-inflammatory benefits<sup>16</sup>.

### Conclusion:

Chikungunya can lead to persistent joint pain and stiffness, which contemporary medicine addresses primarily through symptom management. The symptoms associated with chikungunya are similar to those of *Ama Vata*, and *Ayurveda* provides a comprehensive treatment strategy that encompasses internal medications, external therapies, and lifestyle changes. A case study involving a 38-year-old woman suffering from chronic chikungunya symptoms revealed that *Ayurvedic* treatment significantly alleviated her joint pain, swelling, and stiffness, while also enhancing her mobility and daily functioning. This case study illustrates the effectiveness of *Ayurvedic* treatment in alleviating the debilitating symptoms of post-chikungunya arthralgia.

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