IJNRD.ORG ISSN : 2456-4184
INTERNATIONAL JOURNAL OF NOVEL RESEARCH AND DEVELOPMENT (IJNRD) | IJNRD.ORG
An International Open Access, Peer-reviewed, Refereed Journal

An Ayurvedic Perceptive of Chikungunya W.S.R. to Vatavyadhi – A Review

1.Dr.Sonam V. Surkar 2. Dr.(Mrs) Santosh A. Vyas 3.Dr.Avinash D.Karambhe

1.Asso. Professor Dept. Kaychikitsa,SKS Ayurved Medical College & Hospital Choumuhan mathura

2.Professor,Dept. Kaychikitsa SKS Ayurved Medical College & Hospital Choumuhan mathura

3.Asso. Professor Dept.Kaumarbhritya B.M.A.M. Nagpur Maharashtra

Abstract

Chikungunya is one of the mosquito-borne diseases that we usually hear about. It's a fact that people prefer allopathic medicines for quick relief. Some of them, however, also have serious side effects. Though rarely fatal, chikungunya can cause severe discomfort due to its hallmark symptom of joint pain.In Ayurveda, chikungunya is seen as an imbalance in the body's dosha (Vaata, Pitta, and Kapha) caused by the invasion of external pathogens. Ayurvedic treatments aim to manage symptoms and restore balance through natural remedies, diet, and lifestyle modifications. In Ayurveda, chikungunya can be understood as a condition resulting from the aggravation of Vaata and Pitta dosha. The viral infection disrupts the balance of these doshas, leading to fever (Pitta imbalance) and joint pain (Vaata imbalance). The disease can be compared to "Sandhi-gata -jwara," or "Sandhik Sannipaat" a type of fever that affects the joints and muscles, often linked to seasonal and environmental factors, such as exposure to external pathogens.

Keywords – Ayurveda,Chikungunya ,Vat Vyadhi, Sandhigat Jwara,Joint Pain

Introduction

Chikungunya is a viral infection transmitted by mosquitoes, primarily the *Aedes aegypti* and *Aedes albopictus* species. This disease is prevalent in tropical and subtropical regions, and outbreaks have been reported across Africa, Asia, and India. Though rarely fatal, chikungunya can cause severe discomfort due to its hallmark symptom of joint pain.In Ayurveda, chikungunya is seen as an imbalance in the body's dosha (Vaata, Pitta, and Kapha) caused by the invasion of external pathogens. Ayurvedic treatments aim to manage symptoms and restore balance through natural remedies, diet, and lifestyle modifications.In Ayurveda, chikungunya can be understood as a condition resulting from the aggravation of Vaata and Pitta dosha. The viral infection disrupts the balance of these doshas, leading to fever (Pitta imbalance) and joint pain (Vaata imbalance). The disease can be compared to "Sandhi-gata -jwara," or "Sandhik Sannipaat" a type of fever that affects the joints and muscles, often linked to seasonal and environmental factors, such as exposure to external pathogens.Ayurveda focuses on strengthening the immune system (Vyadhikshamatva) and balancing the aggravated dosha while eliminating toxins (aama) from the body.

HISTORY

The word 'chikungunya' is believed to have been derived from a de-scription in the makonde language, meaning "that which bends up", of the contorted posture of people affected with the severe joint pain and arthritic symptoms associated with this disease1 The disease was first described by Marion Robinson and W.H.R. Lumsden in 1955, following an outbreak in 1952 on the Makonde Plateau, along the border between Mozambique and Tanganyika (the mainland part of modern-day Tanzania).According to the initial 1955 report about the

epidemiology of the disease,. The name "chikungunya" derives from a word in the Kimakonde language that translates to "that which bends up," referring to the contorted appearance of sufferers with joint pain. The disease was first described during an outbreak in southern Tanzania in 1952.

Although chikungunya had previously been detected in countries in Africa, Asia, Europe, and the Indian and Pacific Ocean regions, local transmission of the virus was first detected in the Caribbean in 2013. Since then, the virus has spread throughout most of the Americas, including the United States.

Signs and Symptoms of Chikungunya

The first sign of chikungunya will typically be a fever, followed by a rash. After the bite of an infected mosquito, onset of illness usually occurs 4 to 8 days later (but the range can be 2 to 12 days).

Symptoms include:

- Sudden onset of high fever (typically above 102 degrees F)
- Joint pains
- Headache
- Myalgia
- Conjunctivitis
- Nausea
- Vomiting
- Rash

While the majority of people infected with the virus will have symptoms, 3 to 28 percent of people infected with chikungunya will remain asymptomatic, according to the Centers for Disease Control and Prevention (CDC).

Causes and Risk Factors of Chikungunya

Chikungunya is a viral disease transmitted to humans by infected mosquitoes. It is caused by the chikungunya virus (CHIKV).An infected person cannot directly transmit the virus to another person. The disease is spread when a mosquito feeds on a person with the virus circulating in their blood. The mosquito can pick up the virus and spread it to another person through its bite.According to the CDC, no infants have been found to have been infected with chikungunya virus through breastfeeding.Chikungunya virus is most often spread to people by *Aedes aegypti* and *Aedes albopictus* mosquitoes. These are the same mosquitoes that transmit dengue virus.

CHIK V epidemics in Africa and Asia have been primarily associated with the urban mosquito *A. aegypti*. But since an outbreak on Réunion in 2005, *A. albopictus* has been introduced as a second major spreader of CHIKV.*A. albopictus* is more widely distributed and has the ability to survive in temperate climates. This is unlike *A. aegypti*, which live predominantly in tropical and subtropical areas.Proximity of mosquito breeding sites to human habitation is a significant risk factor for chikungunya.

Chikungunya virus antibodies normally develop toward the end of the first week of illness. IgM antibody levels are highest three to five weeks after the onset of illness and persist for about two to three months. IgG antibodies appear about two weeks after onset of symptoms and can persist for years.

The virus may be directly detected in the blood during the first few days of infection as well. Samples collected during the first week of illness are tested by both serological and virological methods.

Blood tests can also look for similar viruses like dengue and Zika, which have similar symptoms. Test results are normally available 4 to 14 days after a specimen is received by the lab.

Prognosis of Chikungunya

Most patients recover fully from the infection, but in some cases joint pain may persist for several months, or even years.According to the CDC, some patients will have a relapse of rheumatologic symptoms such as polyarthralgia, polyarthritis, tenosynovitis, or Raynaud's syndrome in the months after acute illness. Studies have

reported that anywhere from 5 to 80 percent of patients may experience persistent joint pain, as well as prolonged fatigue, for months or years after their illness.

Once an individual is recovered, they are likely to be immune from future infections.Severe cases and deaths from chikungunya are very rare and are almost always related to other existing health problems. People at risk for more severe disease include newborn babies infected around the time of birth, adults over the age of 65, and people with medical conditions like high blood pressure, diabetes, or heart disease.

Duration of Chikungunya

Fevers typically last from several days to a week. The fever can also be biphasic, meaning it may come in two stages.

Treatment and Medication Options for Chikungunya.There is no specific antiviral drug for chikungunya, so treatment involves relieving the symptoms. Treatment includes:

- Antipyretics to reduce fever
- Analgesics for pain relief and to reduce fever
- Drinking plenty of fluids
- Rest

Given the similarity of symptoms between chikungunya and dengue, in areas where both viruses circulate, suspected chikungunya patients should avoid using aspirin or nonsteroidal anti-inflammatory drugs (NSAIDs) until a dengue diagnosis is ruled out (this is because these medicines can increase the risk of bleeding with dengue)Once a diagnosis is established, patients with persistent joint pain can use nonsteroidal anti-inflammatory drugs and corticosteroids, including topical preparations. Physical therapy may help lessen the symptoms.

Prevention of Chikungunya

There is no vaccine or preventive drug for chikungunya, so the best way to avoid infection is to prevent mosquito bites. But there are potential vaccines being evaluated in clinical testing.

Basic precautions should be taken by people traveling to high risk areas, including:

- Wearing long sleeves, long pants, and other clothing that minimizes skin exposure
- Using insect repellents on skin or clothing
- Making sure indoor spaces have adequate screens to keep mosquitoes out
- Using insecticide-treated mosquito nets over your bed if you sleep in the daytime
- Wearing mosquito netting over your face and neck, in addition to using gloves or repellents, if you spend a lot of time outdoors in areas with mosquitoes
- Avoiding travel to areas experiencing a chikungunya outbreak
- Using mosquito coils and insecticide vaporizers during the daytime

Reducing the number of places that mosquitos breed around your home can cut down the population significantly. Some simple actions include:

- Emptying water from containers, such as the saucers under potted plants, vases, buckets, and rain gutters
- Covering water containers that cannot be emptied, such as tanks or reservoirs that provide household water

- Getting rid of old tires that may be left outside
- Keeping garbage in closed plastic bags and other closed containers

Complications of Chikungunya

Serious complications are not common, but occasionally infection can lead to serious problems of the skin, eyes, kidneys, heart, or nervous system.

Rare but serious complications include:

- Myocarditis (inflammation of the heart)
- Ocular disease (uveitis, retinitis)
- Hepatitis
- Acute renal disease
- Severe, blistering rash
- Neurologic disease such as meningoencephalitis, Guillain-Barré syndrome, myelitis, or cranial nerve palsies

Research and Statistics: How Many People Get Chikungunya?

Because of the challenges in accurate diagnosis for chikungunya, there is no real estimate for the number of people affected by the disease on an annual basis.

Outbreaks can be large and can lead to a significant percentage of a population in a certain contracting the disease.

Past outbreaks include:

- **2005–2006** More than 272,000 were infected in the Indian Ocean islands of Réunion and Mauritius.
- **2006** More than 1,500,000 were reported to be infected in India.
- **2007** 197 cases were reported in a coastal village in Italy.
- **2014–2016** 4,339 confirmed cases were reported in Puerto Rico (official surveillance reported 28,327 suspected cases).
- **2020** The CDC reported significant outbreaks in Chad and Ethiopia.

Related Conditions of Chikungunya

The symptoms of chikungunya are similar to those of dengue and Zika, diseases spread by the same mosquitoes that transmit chikungunya. Chikungunya can be misdiagnosed in areas where the three diseases are common. Dengue fever is more lethal than chikungunya, and prompt recognition and treatment of it can be lifesaving.

Chikungunya can evolve into a long-lasting, debilitating rheumatic disorder with symptoms that mimic rheumatoid arthritis. Researchers are still trying to understand the exact mechanism by which the chikungunya virus induces persistent arthritis. One theory is that chikungunya alters the immune response. It's also thought that persistence of viral antigens could be a contributing factor to the development of chronic chikungunya arthritis.

How Is Chikungunya Diagnosed?

If any have recently returned from an area with known virus transmission and are experiencing high fever and joint pain, your doctor might recommend a series of blood tests to detect the presence of chikungunya virus or antibodies. Several methods can be used for diagnosis of chikungunya virus infection.

Serological tests, such as enzyme-linked immunosorbent assays (ELISA), may confirm the presence of IgM and IgG anti-chikungunya antibodies.

Ayurveda And Chikungunya

In Ayurveda, chikungunya is seen as an imbalance in the body's dosha (Vaata, Pitta, and Kapha) caused by the invasion of external pathogens. Ayurvedic treatments aim to manage symptoms and restore balance through natural remedies, diet, and lifestyle modifications. In Ayurveda, chikungunya can be understood as a condition resulting from the aggravation of Vaata and Pitta dosha. The viral infection disrupts the balance of these doshas, leading to fever (Pitta imbalance) and joint pain (Vaata imbalance). The disease can be compared to "Sandhi-gata -jwara," or "Sandhik Sannipaat" a type of fever that affects the joints and muscles, often linked to seasonal and environmental factors, such as exposure to external pathogens.Ayurveda focuses on strengthening the immune system (Vyadhikshamatva) and balancing the aggravated dosha while eliminating toxins (aama) from the body.

NIDANA- AYURVEDIC CAUSES OF CHIKUNGUNYA

- Excess consumption of acrid, salt, hot, unctuous food
- Eating during indigestion
- Agantuj factors – infections
- Improper administration of purification therapies
- Depletion of body tissue

PURVAROOPAM- AYURVEDIC PREMONITORY SYMPTOMS OF CHIKUNGUNYA

- Increased body temperature
- Weakness

SAMPRAPTI – AYURVEDIC PATHOGENESIS OF CHIKUNGUNYA

Due to the causative factors doshas become vitiated and spreads to the entire body. Aggravated doshas enter the digestive system and combine with agni, accompanying the rasa, blocks the channels. Agni expels out from the site of digestion and spreads to all over the body and gives rise to jwara.

LAKSHANA – AYURVEDIC SIGNS AND SYMPTOMS OF CHIKUNGUNYA

- Jwara – fever
- Sandhi Shoola – joint pain
- Sandhi Shotha – arthritis
- Kandu – itchy skin lesions
- Arochaka – anorexia
- Shirah Shoola – headache

AYURVEDIC PROGNOSIS OF CHIKUNGUNYA

- Prognosis is Sadhya – curable

Ayurvedic Management Of Chikungunya

A) Herbal Remedies**:**

1. Guduchi (Tinospora cordifolia): Guduchi is a powerful immune booster that helps manage fever and detoxifies the body. It helps restore balance in both Vaata and Pitta dosha.
2. Tulsi (Ocimum sanctum): Tulsi is revered in Ayurveda for its antiviral, anti-inflammatory, and immune-enhancing properties. It is beneficial in reducing fever and respiratory discomfort.
3. Shunthi (Dry Ginger): Shunthi helps in improving digestion, reducing nausea, and alleviating joint pain caused by Vaata imbalance.
4. Shallaki (Boswellia serrata): An excellent herb for managing chronic inflammation and joint pain.

B) Ayurvedic Formulations:

1. **Mahasudarshan Churna:** This herbal powder is traditionally used for managing fevers and viral infections. It helps detoxify the body and supports the immune system.
2. **Amritarishta**: A liquid formulation that helps manage fever and strengthens the immune system, balancing Pitta and promoting recovery from infections.
3. **Rasna Saptak Kwath**: An Ayurvedic decoction specifically formulated to manage joint pain and swelling, making it useful for chikungunya-induced arthralgia.
4. **Dashamularishtha**: An ayurvedic decoctions formulated for vaata disorder management that can be used in Chikungunya pain management.

Ayurvedic medicines for Internal administration for CHIKUNGUNYA

- Sanjeevani Vati
- Sudarshana Ghana Vati
- Amrutharishta
- Trayodashanga Guggulu
- Maha Rasnadi Kvatha
- Amritotharam kashayam

HOME REMEDIES FOR CHIKUNGUNYA

- Intake of warm water frequently
- Proper rest
- Intake of water boiled with coriander and dried ginger

Immunity Boosters FOR CHIKUNGUNYA

- Indukantham Qwath Tablet
- Chyvanprash
- Sidhamakaradhwaj
- Sudarsana Tablet
- Vilwadi Gulika

C) Dietary Recommendations For Managing Chikungunya

Diet plays a crucial role in both recovery and prevention of chikungunya. During the illness, it's important to eat foods that balance Vaata and Pitta dosha while promoting easy digestion and immune function.

Do's:

– Warm, Nourishing Foods: Opt for light, easily digestible meals like khichdi, soups, and broths. These help balance Vaata and Pitta while providing energy for recovery.

– Fresh Vegetables: Include cooked leafy green beans, carrots, pumpkin, and other vegetables that are easy to digest. Avoid raw foods during the recovery phase, as they are harder to digest and can aggravate Vaata.

– Herbal Teas: Drink herbal teas made from Tulsi, ginger, and turmeric to boost immunity, reduce inflammation, and improve digestion.

– Hydration: Stay hydrated with warm water or coconut water. It helps flush out toxins and supports overall healing.

– Ghee: Use ghee in moderate quantities to lubricate the body internally and balance Vaata.

Don'ts:
– Avoid Spicy and Oily Foods: Spicy, fried, or overly greasy foods can aggravate Pitta and slow down digestion, leading to aama (toxins) buildup.

– Cold Foods: Cold drinks, ice creams, and refrigerated foods should be avoided as they can disturb the digestive fire (Agni) and aggravate Vaata.

– Heavy Foods: Avoid meat, excessive dairy, and hard-to-digest food items like pizza or processed snacks, as they can create toxins and impair recovery.

– Caffeine and Alcohol: These can dehydrate the body and aggravate Pitta, leading to inflammation and slower recovery.

Do's And Don'ts In Ayurveda For Chikungunya Recovery

Do's:

1. Take adequate rest to allow the body to recover.
2. Practice gentle yoga and breathing exercises like Pranayama to strengthen the immune system and enhance circulation.
3. Use warm water for bathing and drink warm herbal infusions.
4. **Oil Massage (Abhyanga):** Massage the body with warm oils like sesame or mustard to improve joint mobility. Medicated oils like Mahanarayan oil or Dhanwantharam oil for gentle massage help soothe joint pain and reduce stiffness caused by Vata imbalance. This therapy not only alleviates pain but also improves blood circulation and muscle flexibility.
5. **Panchakarma Therapy:**

- **Snehana (Oleation Therapy):** Internal and external use of medicated oils can help lubricate the joints and alleviate pain. (Only if there is no swelling)
- **Swedana (Steam Therapy)**: This treatment helps reduce inflammation, improve circulation, and relax muscles, relieving joint pain and stiffness.
- **Virechana (Therapeutic Purgation):** This detoxification therapy is used to eliminate excess Pitta from the body, helping manage fever and inflammation.
- **Basti (Medicated Enema):** Vaata-balancing Basti treatments can alleviate chronic joint pain by nourishing and detoxifying the lower gastrointestinal tract.

All the Panchakarma therapies have to be done only after a doctor's recommendation.

Don'ts:

- Avoid overexertion and heavy physical activity until full recovery.
- Do not skip meals or consume cold, stale, or processed foods.
- Refrain from exposure to cold drafts or air conditioning, as it may aggravate joint pain and Vaata dosha.
- Avoid daytime naps, which can impair digestion and slow recovery.

All the above-mentioned ayurvedic medications and formulations are for the purpose of information and awareness about the Chikungunya disease. Patients are advised to take necessary consultation and advice from the doctor while treating with chikungunya.

YOGA FOR CHIKUNGUNYA

- **Nadi Shuddi Pranayam – calms the mind and gets relief from the pain associated with chikungunya**

The patient needs to be seated in a meditative posture with the head and spine erect, with the body relaxed. The patient has to close his one nostril (e.g. left nostril if using the right hand and vice versa) with the thumb and exhale completely through the other nostril. Again, he will have to breathe in deeply through the other nostril while the opposite nostril is still closed with the thumb.

- **Bhujangasana – immune booster asana**
- **Shashankasana**
- Kapal Bhati
- Ujjayi
- Bhastrika

References

1. Vd. Yadavji Trikamji Acahrya, 2008, Charak Samhita of Agnivesha elaborated by Charak and Dridhabala with Ayurved-Dipika Commentary by Chakrapanidatta, Chaukhamba surabharati prakashana, Varanasi.
2. Sahastrayogam, Chaukhamba Sanskrita Pratishthan2012
3. Dr. Ganesh Krishna Garade, published 1891, edition 2001 Sartha Vagbhata, Anmol Prakashan, Pune.
4. Dr.K.H.Krishnamurthy 1st edition-2000, Bhel Samhita,chaukhamba, Varanasi
5. RAmvallabha Shastri,1981, Harit Samhita, Prachya Prakashana.
6. Shri. Brahmashankar Mishra Shastri, 1961, Bhavaprakasha, Vidyotani commentary, Chaukhamba Prakashana, Varanasi.
7. Shri. Priyagadatta Sharma, 1976,5th edition, Sharangdhara Samhita, Chaukhamba, Varanasi.
8. Prof. Yadunandana Upadhyaya (Revised edited by) Sri. Sudarshana Shastri, 29th edition-1999, Madhavanidana of sri Madhavakara with the â€˜Madhukoshaâ€™ Sanskrit commentary by Sri. Vijayrakshita and Srikanthadatta with the â€˜Madhukoshaâ€™ Sanskrit commentary by sri. Vijayarakshita and Srikanthdatta with the â€˜Vidyotiniâ€™ Hindi commentary and notes, part-1& part-2; Chaukhamba Sanskrit Sansthana, Varanasi.
9. Sri. Satyapala bhishagacharya, 8th edition 2002, the Kashyapa Samhita by Vriddha Jivaka revised by Vatsya with Sanskrit introduction by Nepal rajguru pt.Hemaraja Sharma with the Vidyotini Hindi commentary and Hindi translation, Chaukhamba Sanskrit Sansthana, Varanasi.
10. Prof. Siddhi Nandan Mishra, 2007, Bhaishajyaratnavali of Kaviraj GovindadasSen edited with â€˜Siddhipradaâ€™ Hindi commentary; Chaukhamba Surbharati Prakashana, Varanasi.
11. Prof. Dr. A. P. Deshpande, Prof. Dr. R.R. Javalagekar, Prof. Dr. S. Ranade, edition -Jan 2001, Dravyaguna vidyana part 1&2, Anamol prakashan, Pune 2.
12. Prof.Vd. Y. G. Joshi,2001,Kayachikitsa; Pune, sahitya vivarana
13. Seidell J.c.- Narrow Hips and broad waist circumferences independently contribute to risk to N.I.D.D.M.- J. Internal Med.- 1997, 242, 401- 406.
14. www.google.com
15. www.eMedicine.com
16. www.Wikipedia.org
17. www.ncbi.nlm.nih.gov
18. www.pubmed.org