



CHIKUNGUNYA: WHAT YOU NEED TO KNOW

Ms. Anubha M.
Yoel

M.Sc. N, Lecturer JIHS

KEYWORDS :



The chikungunya virus infects humans through the bite of a mosquito. It causes fever and joint pain. It is rarely fatal, but the symptoms can be severe, long-lasting, and debilitating.

Once considered a disease of the tropics, cases have now been documented in more than one quarter of the countries on earth. This article will discuss the chikungunya virus, its causes, symptoms, treatment, and diagnosis - it will also cover ways to avoid the virus.

The chikungunya virus is predominantly transmitted by a bite from an infected female mosquito. In general, it is not considered contagious; however, in rare cases, the virus can be transmitted through contact with an infected individual's blood.

FAST FACT ON CHIKUNGUNYA VIRUS:

- The word "chikungunya" means "to walk bent".
- The major symptoms are fever and joint pain.
- Chikungunya can only be definitively diagnosed by a blood test.
- There are no vaccines for chikungunya.

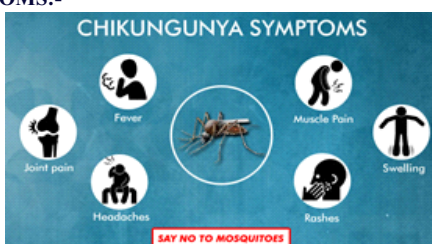
HISTORY:-

The word "chikungunya" comes from the Makonde (or Kimakonde) language, spoken on the Makonde plateau where the disease was first described. It means, "that which bends up," "to become contorted," or "to walk bent over," describing the stooped appearance of patients with joint pain.

Chikungunya is an RNA virus and a member of the *Togaviridae* family. The disease was first described during an outbreak in Tanzania in 1952. Immediately after the first description of the disease, there was a wealth of scientific papers published covering the new condition. This initial interest all but disappeared until a fresh outbreak occurred in and around the Indian Ocean in 2005.

Historically, chikungunya was considered a tropical disease because it had only been documented in Africa, Asia, and India.

However, since 2007, outbreaks have occurred in Italy, France, Croatia, and the Caribbean islands. In total, more than 60 countries have identified cases of chikungunya virus.

SYMPTOMS:-

The virus causes a fever that lasts a few days and joint pain that can last weeks or months.

The symptoms of chikungunya virus are similar to those of other diseases such as dengue fever. The symptoms normally appear just a few days after a mosquito has bitten an individual. The most common symptoms are:

- fever (sometimes as high as 104 °F)
- joint pain
- headache
- muscle pain
- rash
- swelling around the joints

DIAGNOSIS:

The only way to diagnose chikungunya is by a blood test.

Only a blood test can definitively diagnose chikungunya as symptoms are not always easy to tell apart from other conditions.

It is important to rule out dengue fever as quickly as possible because of its higher rate of mortality - up to 50 percent if untreated, compared with 0.1 percent for chikungunya.

If an individual with the symptoms outlined above has recently visited an area where either of these diseases are common, they should visit a doctor as soon as possible.

TREATMENT:-

The virus is rarely fatal, but the symptoms can be severe and disabling. Most patients recover from the fever within a week, but the joint pain has been known to persist for months. Even after 1 year, 20 percent of patients report recurring joint pain.

There are no specific drugs to treat chikungunya; doctors simply recommend rest and plenty of fluids.

Over-the-counter medications will help ease fever and joint pain. These include:

- Naproxen
- Ibuprofen
- Acetaminophen

CHIKUNGUNYA VACCINE:-

Currently, there is no vaccine or antiviral treatment, but, in general, the disease is short-lived and rarely fatal. Medication focuses on relieving the symptoms rather than the cause. The National Institute of Health (NIH) are currently funding a phase 2 clinical trial of a chikungunya vaccine. The vaccine consists of so-called virus-like particles (VLPs) rather than inactivated or weakened viruses.

VLP-based vaccines can stimulate immune responses similar to those generated by naturally acquired immunity following viral infection. However, VLPs are not infectious and cannot replicate. Since whole viruses are not used to produce VLP vaccines, they do not need to be prepared in high-level bio containment facilities.

COMPLICATIONS OF CHIKUNGUNYA:-

Complications can include:

- **Uveitis** - inflammation of the layer in the eye between the inner retina and the outer fibrous layer composed of the sclera and cornea.
- **Retinitis** - inflammation of the retina.

- **Myocarditis** - inflammation of the heart muscle.
- **Hepatitis** - inflammation of the liver.
- **Nephritis** - inflammation of the kidneys.
- **Hemorrhage** - bleeding.
- **Meningoencephalitis** - inflammation of the membranes of the brain and adjoining cerebral tissue.
- **Myelitis** - inflammation of the spinal cord.
- **Guillain-Barré syndrome** - rare peripheral nervous system disease characterized by muscle weakness.
- **Cranial nerve palsies** - loss of function in the cranial nerves.

PREVENTION:

One of the most effective and simple methods of prevention is using mosquito repellent.

Seeing as the major mode of chikungunya transmission is by mosquito bite, the best methods of prevention involve minimizing contact with mosquitos. Steps that can be taken to prevent chikungunya include:

- Using insect repellent containing DEET (N, N-Diethyl-metoluamide) or picaridin on skin and clothing.
- Wearing clothing that covers the whole body.
- Staying indoors as much as possible, especially during early morning and late afternoon.
- Avoiding traveling to areas experiencing outbreaks.
- Using products containing oil of lemon eucalyptus or PMD (p-Menthane-3,8-diol) can be effective.
- Using air-conditioning - this deters mosquitos from entering rooms.
- Sleeping under a mosquito net.
- Using mosquito coils and insecticide vaporizers.

Although chikungunya is very rarely fatal, the symptoms are distressing and can be long-lived. Avoiding mosquitos is key.