

EDITORIAL

CHIKUNGUNYA: A NEW ONE IN THE BOX

For the first time Ministry of National Health Services, Regulation and Coordination (NHSRC) has reported the presence of Chikungunya virus outbreak in Pakistan to World Health Organisation (WHO); these cases were confirmed from National Institute of Health (NIH), Islamabad. Our health professionals need a detail insight about this virus as it resembles dengue virus in many means regarding its presentation.

Chikungunya is a mosquito-borne virus belongs to family *Togaviridae* and genus *Alphavirus*. The first outbreak was reported in southern Tanzania in 1952 and it got its name from a word of Kimakonde language meaning 'to dry up or become contorted', as it refers to the 'stooped' look of patients suffering from arthralgia. It is transmitted to humans by *Aedes aegypti* and *Aedes albopictus* infected mosquitoes, these are responsible for spread of dengue virus as well. There is no direct human to human spread but after bite, a mosquito can transmit virus from an infected person to healthy individual. Chikungunya has been reported in over 60 countries of important continents, namely Asia, Africa, Europe, North and South America. These mosquitoes are very resilient and particularly well-adapted to different atmospheres; breed in small amount of stagnant water, whether in discarded containers or tyres, and they have the ability to bite during day light, making use of nets of little importance in prevention of this virus. Because of this robust nature they spread from Tanzania to across the globe by exploiting human activity as a spreading source.

A patient becomes symptomatic about 4 to 7 days after it has been bitten by an infected mosquito. Moreover, it can be mistaken for dengue fever in an endemic area as both share many symptoms. The commonest presentation is fever and joint pains. Other symptoms may include headache, nausea, vomiting, joint swelling, conjunctivitis, bleeding or rash. The virus remains in the body for a week and this is the time when mosquitoes can spread virus among human beings. Luckily, it is rarely fatal and once a person is recovered from it, he becomes immune life-long.

Diagnosis of Chikungunya virus is challenging. The gold standard test for diagnosis is viral culture, which is not done in many institutes due to lack of facilities. Reverse transcription polymerase chain reaction (RT-PCR) is also a good option in the first week for early diagnosis. Mostly, IgM and IgG antibodies against virus are detected by indirect immune-fluorescent method (IIF) or enzyme linked immune-sorbent assay (ELISA). IgM antibodies are its peak in the first week and persist for almost 2 months.

Unluckily, till-date no treatment is available for neither prevention nor treatment of this virus. But the good news is that, it is a self-limiting disease and lasts for 2 to 3 days in majority of patients: however, in some

patients arthralgia can last for 3-5 years. Patients are treated symptomatically; they are advised to drink plenty of water in order to avoid dehydration. It is better to avoid Non-Steroidal Anti-inflammatory drugs (NSAIDs) as it may cause immunosuppression and worsen the infection. Aspirin use increases risk of bleeding; therefore, its use is not recommended. Acetaminophen can be taken for pyrexia and arthralgia. We should aware our people about this virus as well so that they can seek medical advice as soon as possible; moreover, a high index of suspicion should be kept about presence of this virus in dengue endemic areas in order to avoid any misdiagnosis. Lastly, like all other mosquito-borne viruses, prevention is the best way out.

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