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LETTER TO THE EDITOR

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Vector-borne crisis in the tropics: Recent Chikungunya outbreak in Mauritius, in 2025

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Dear Editor,

Chikungunya is also denoted as CHIKV, a genus of Alphavirus of the Togaviridae family. It is an arbovirus which was initially identified in Africa in the 1950s. The virus is most naturally transmitted via the Aedes albopictus mosquito, but in urban areas, the Aedes aegypti mosquito is mainly implicated in the transmission of the virus. Since its initial isolation, Chikungunya has become globally distributed in tropical areas and has now spread into the subtropics and even the Western Hemisphere. The spread of the virus globally and to non-endemic regions as well as the shift of the vector from the Aedes Albopticus in rural areas to the Aedes aegypti mosquito in urban areas is as a direct cause of globalization and the amount of travelling and international movement of both humans, animals and freight across international borders [1]. The Centers of Disease Control and Prevention (CDC) United States has officially declared active chikungunya outbreak in Mauritius and issued a Level 2 travel notice- Practice enhanced precautions for the travellors [2].

Signs, symptoms, and treatment:

The virus causes a host of signs and symptoms, including but not limited to a high fever, muscle pain, joint pain, joint effusions, headache, nausea, rashes, and malaise. An identifying feature of Chikungunya, which helps differentiate it from Dengue fever, is the severe joint pain and arthralgia associated with Chikungunya. Furthermore, the pain associated with Chikungunya is long-lasting and patients may complain of the associated arthralgia for up to 3 to 4 months post the initial infection. No specific antiviral treatment is available for the treatment of chikungunya, and the mainstay management of such patients is symptomatic in nature, including rest, analgesics, and antipyretics [3]. Two vaccines available in the United States of America named IXCHIQ and VIMKUNYA does exist for the chikungunya virus. [4].

Mauritian outbreak and response:

The tropical island of Mauritius is currently experiencing an outbreak of Chikungunya; the first locally identified case being confirmed on the 15th of March 2025 in a 37-year-old woman who received treatment in a private clinic [5].

From March 15- May 13, 2025, 322 cases being locally acquired and 33 thereof being imported [6]. The situation is becoming increasingly alarming due to recent rising in the number of cases.

The Government has spearheaded a multiple-prong

approach to contain the virus and protect the Nation. The Minister of Health and Wellness of Mauritius chaired a multisectoral meeting with the relevant WHO representatives and key stakeholders from various governmental agencies on the Chikungunya outbreak in Mauritius. Contact tracing, public collaboration, proactive prevention such as fogging, fever surveying, mist-blowing, larvicidal operations, and door-to-door inspections are part of the current containment and prevention plan instituted by the Government in order to prevent the cases from rising [5, 6].

Expert opinion:

Mauritius is unique in nature as it is a small island nation, which is self-contained and has a competent and well-functioning Ministry of Health. The high number of international tourists that visit its sandy beaches makes it a hotbed for the likely transmission of such a virus to other foreign nations. It is therefore pertinent that the outbreak is closely monitored by both local and international health agencies as it is of international importance. The swift action of the local authorities should contain the spread and thus secure both local and international health so as to curtail both the local and international transmission to subtropical and other non-endemic regions. The collaboration between all stakeholders, both local and international, as well as the public, will be of the utmost importance in supporting and ensuring that the outbreak will be contained.

Keywords

Arbovirus Infections, Chikungunya Fever, Indian Ocean Islands, outbreaks

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