



The Open Public Health Journal

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LETTER TO THE EDITOR

Tomato Flu Outbreak: A Threat to the Children in India

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Article History

Received: October 27, 2022

Revised: March 04, 2023

Accepted: July 10, 2023

Dear Editor,

Coronavirus disease of 2019 (COVID-19) infection rates are still a major concern for many governments, particularly as there may be a potential fourth wave of the disease. However, India, in addition to COVID-19, is also experiencing an outbreak of a new virus known as tomato flu, which has emerged in Kerala and appears to affect children under the age of five [1]. Tomato flu, also known as tomato fever, was identified in May, 2022, in India's Kollam district of Kerala [2] and has since been reported in two neighbouring states of Tamil Nadu and Odisha. A characteristic symptom of the disease is the presence of reddish bullous blisters shaped like tomatoes that appear on the hands, feet, and oral cavities of those affected. In addition, most of the time, infected persons suffer rashes, skin irritation, and dehydration [3, 4].

Historically, tomato fever cases were first reported in Kerala back in 2007. Several people were affected at the time at Mudakayam, Varzur, and Kanirapally in Kottayam and Pathanamthitta districts, which had previously been infected with Chikungunya [5]. It has been postulated that tomato flu may not be a viral infection in children but rather a complication of dengue or chikungunya fever [6, 7]. The virus may also represent a novel strain of the viral hand, foot, and mouth disease (HFMD), a prevalent infectious disease that primarily affects children (1-5 years) and adults with impaired immune systems [8]. An RNA virus from the Picornaviridae family known as Coxsackievirus A16 was determined to be the causative agent of the present outbreak in India [9]. In addition, it is well established that Coxsackie A16 and Enterovirus 71 are the two viruses that cause HFMD [10].

Tomato flu is known to be highly contagious and spread by close contact with an infected person's clothing and other non-

porous surfaces [11]. Eighty-two children under five in Kerala have been infected with tomato flu within the last few months. Additionally, 26 cases have since been reported in neighbouring Tamil Nadu state and Odisha in the east, where children as old as nine have been infected. Moreover, tomato flu has so far been detected in more than 100 cases among children across India since the first case was reported on May 6th, 2020 [11].

Treatment for the disease includes isolation, rest, fluid intake, and a warm water sponge bath to relieve irritation and rashes. Paracetamol is prescribed for reducing fever and body pain, although other symptomatic therapies may be required [12].

In most situations, the clinical presentation is minimal. The infection is self-limiting and is expected to go away on its own in 7–10 days. Particularly in areas where outbreaks are occurring, the diagnosis is established on the clinical history and physical exam [13]. The key to tackling the disease is prevention. Infected individuals should be isolated for 5-7 days after the onset of symptoms to prevent further spread to other children or adults. In addition, maintaining adequate hygiene and sanitization of immediate surroundings is imperative [14].

Depending on the frequency and number of tomato flu infections, a wider public health strategy may be required to prevent the disease from becoming a national problem in a country that is ranked second in the world in terms of population [15]. Hence, early prevention and strict regulatory actions are of utmost importance. Travel precautions, in addition to resourcing health centres and hospitals in infected areas, may also be necessary. Implementing rigorous screening, in addition to health awareness and education campaigns, for adults and children should be implemented immediately to prevent a wider spread of the disease [16]. Moreover, currently, a vital area of research is a vaccine for this infectious disease that needs to be explored [13].

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CONFLICT OF INTEREST

The authors declare no conflicts of interest, financial or otherwise.

ACKNOWLEDGEMENTS

Declared none.

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