

Tomato Flu Outbreak in India - What is known to Date

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Abstract: A new rare virus - tomato flue or tomato fever has emerged in India in the state of Kerala. The alarming facet of this flu is that it is prevalent in children below the age of 5 years. The flu was first identified in Kollam district of Kerala on May 6, 2022. As of July 26, 2022 over 82 children younger than 5 years with the infection were reported. Tomato flu is a self-limiting and as of now there are no specific drug exists to treat it. Similar to other kinds of influenza, tomato flu is highly contagious. Therefore, it is essential to take appropriate measure to so as to prevent the outbreak of the tomato flu virus spreading from Kerala to the other parts of India.

Keywords: Tomato flu, tomato fever

1. Introduction

A new rare which is referred to as tomato flu, or tomato fever, has emerged in India in the southern state of Kerala among children younger than 5 years¹. So far eighty-two cases of the tomato flu have been recorder by authorities. This is not the first time for tomato cases to be reported in India. In the past, Tomato fever cases were reported in the year 2007, also in Kerala. At the time there were report of many people being infected in the areas of Mudakayam, Varzur, and Kanirapally in Kottayam and Pathinamtitla districts. It was observed that these areas were earlier infected by Chikungunya².

Tomato flu or tomato fever has nothing to do with tomatoes but the infection gets its name because of the reddish blisters it causes – which look like tomatoes³. It is observed that these blisters also resemble those blisters as seen in cases of monkeypox virus among young children¹. Tomato flu is a self-limiting and as of now there are no specific drug exists to treat it.⁴

Some newspapers and experts, however, have suggested the possible the possible for this outbreak to be head foot mouth disease (HFMD) instead of tomato fever^{5,6}. Head foot mouth disease is usually caused by Coxsackie Virus A16 and Enterovirus.⁷⁻⁸ Owing to the absence of considerable scientific literature, the precise explanation for the cause of the outbreak continues to be under the microscope. At present, this rare viral infection is in an endemic state and is considered to be non-life threatening; however, after the dreadful experience of the COVID-19 pandemic, it is desired to have a vigilant management so as to prevent further outbreaks.⁴

Symptoms of Tomato Flu

Although the tomato flu virus shows symptoms that are similar to those seen in COVID-19, the virus is not associated with the SARS-CoV-2¹.

Some experts are of the opinion that Tomato flu might be an after-effect of chikungunya or dengue fever in children instead of a virus infection. The virus could even be a brand new variant of the viral hand, foot, and mouth disease, which is a typical communicable disease seen mostly children aged

1 to 5 years and in immunocompromised adults.¹

Symptoms of this flu include fever, fatigue, body aches and rashes that cause skin irritation. Similar to other viral infections, further non-specific symptoms include, nausea, vomiting, diarrhoea, dehydration, swelling of joints, body aches, and common influenza-like symptoms, which are the same as those manifested in dengue.³

The virus may be present in their system for several weeks, even after signs and symptoms of the infection have subsided.²

Origin

In the present outbreak, the tomato flu was first identified in the Kollam district of Kerala on May 6, 2022. And as of July 26, 2022 over 82 children younger than 5 years with the infection were reported. The other areas affected in the state of Kerala are Anchal, Aryankavu, and Neduvathur. Additionally, 26 children (aged 1–9 years) are also reported as having the disease in Odisha by the Regional Medical Research Centre in Bhubaneswar. To date, other than Kerala, Tamil Nadu, and Odisha, no other regions in India have been affected with the virus.^{1,9}

Diagnosis

In children with suspected symptoms, molecular and serological tests are to be carried out to rule out the diagnosis of dengue, chikungunya, zika virus, varicella-zoster virus, and herpes. Once these viral infections are ruled out, contraction of tomato virus is confirmed.^{1,9}

Treatment

Since tomato flu is similar to chikungunya and dengue as well as hand, foot, and mouth disease, treatment given is also similar—i.e., isolation, rest, lots of fluids, and hot water sponge for the relief of irritation and rashes. Supportive therapy include paracetamol for fever and body ache, and other symptoms are treated as required.¹As yet, no antiviral drugs or vaccines are available for the treatment or prevention of tomato flu.³

Susceptible group

Children are at an increased risk of exposure to tomato flu as viral infections are common among children and spread is mostly through close contact.

Young children prone to this infection due to use of nappies, touching unclean surfaces, and tendency of putting things directly into the mouth.

Tomato flu is similar to hand, foot, and mouth disease, and is highly contagious. Hence, if the outbreak of tomato flu in children is not controlled and prevented, transmission might cause serious consequences by spreading to adults.^{1,3}

2. Preventive Measures

Isolation should be strictly followed for 5–7 days from the onset of symptom so as to prevent the spread of infection to other children or adults¹. The best solution for prevention, however is the maintenance of proper hygiene and sanitisation of surrounding environment as well as preventing the sharing of toys, clothes, food, or other items of the infected child with other non - infected children^{1,3}

Repurposing of old drugs and vaccination are the most effective measure to ensure the safety of public health from viral infections, especially in children, older people, immuno - compromised people, and people with underlying health issues.¹

Similar to other kinds of influenza, tomato flu is highly contagious. Therefore, it is mandatory to follow careful isolation of confirmed or suspected cases and other precautionary steps so as to prevent the outbreak of the tomato flu virus spreading from Kerala to the other parts of India.¹ India being a highly populous country, early prevention is essential and strict measures taken to prevent widespread outbreak².

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