

A New Endemic in India: Tomato Flu

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Abstract- Just as we are dealing with the probable emergence of fourth wave of COVID-19, a new virus known as tomato flu, or tomato fever, has piqued the interest as it is possibly indicating towards another viral outbreak amidst the Covid-19 outbreak. The rare viral infection is in an endemic state and is considered non-life threatening; the predominant sign of this illness, however, is the appearance of blisters, which initially appear as little red-patches and then develop to resemble the vegetable tomato. It seems like hand, foot and mouth disease of cattle. It is usually mild and clears up by itself within a week. The emergence of increasing cases in the initial phases has raised concerns regarding the rapidity of its spread.

Key Words: Tomato Flu, Pandemic, HFMD.

INTRODUCTION:

Historically, Tomato fever cases were reported in the past in 2007 in Kerala. Numerous people were found infected in areas of Mudakayam, Varzur, and Kanirapally in Kottayam and Pathinamtita districts, which were preliminary infected by Chikungunya. Prominent Virologist Dr. Jacob John observed that HFMD is caused by two distinct viruses, Coxsackie A16 and Enterovirus 71. He even reported that the first being milder and takes longer time to spread [1]. The tomato flu was later detected in the Kollam district of Kerala on May 6, 2022, and as of July 26, 2022, more than 82 children younger than 5 years with the infection have been reported by local government hospitals. The other high-flown areas of Kerala are Anchal, Aryankavu, and Neduvathur. This endemic viral illness triggered an alert to the neighbouring states of Tamil Nadu and Karnataka.

Tomato flu gained its name on the basis of the eruption of red and painful blisters throughout the body that gradually enlarge to the size of a tomato. These blisters resemble those seen with the monkeypox virus in young individuals. Rashes found on the skin leads to skin irritation. Tomato flu is a self-limiting illness and no specific drug exists to treat it. Additionally, 26 children (aged 1–9 years) have been reported as having the disease in Odisha by the Regional Medical Research Centre in Bhubaneswar. To date, apart from Kerala, Tamilnadu, and Odisha, no other regions in India have been affected by the virus [2]. The common sign of HFMD are skin rash on the palm of hands and soles of the foot, dehydration due to mouth sores, and fever (tomato flu is alike chikungunya and dengue). Children's are at higher risk of exposure to tomato flu as viral infections are common in this age group and expansion is likely to be through. Tomato flu could be an after-effect of chikungunya or dengue fever in children rather than a viral infection. The virus could also be a new variant of the viral hand, foot, and mouth disease, a common infectious condition targeting major children aged 1–5 years and immunocompromised adults, and few case studies have even shown HFMD in immunocompetent adults [3].



Figure-01



Figure-02

TRANSMISSION:

Tomato flu is communicable and children are at increased risk of exposure, which likely to be spread through close contact with infectious individuals.

If the outbreak of tomato flu in children is not controlled/prevented, transmission may lead to serious consequences by spreading in adults as well [4].

SYMPTOMS:

Primary Symptoms	Secondary Symptoms
High fever	Fatigue, body aches
Rashes	Nausea, Vomiting
Intense pain in joints	Diarrhoea, Dehydration
Blisters on the Body	Swelling of joints

Table- 01- Symptoms

MANAGEMENT:

It is mandatory to follow careful isolation of confirmed or suspected cases and other precautionary steps to thwart the outbreak of the tomato flu. Isolation should be followed for 5–7 days from onset of symptom to prevent the outspread of infection to other children or adults. Main focus for prevention is maintenance of proper hygiene and sanitisation of the surrounding environment as well as preventing the infected child from sharing toys, clothes, food, or other items with other non-infected children.

Infected children should avoid touching or scratching the blisters.

Supportive therapy of paracetamol for fever and body ache and other symptomatic treatments are required.

Drug repurposing and vaccination are the most efficacious and cost-effective approaches to ensure the safety of public health from viral infections, especially in children, older people, immunocompromised people, and those with underlying health issues. As yet, no antiviral drugs or vaccines are available for the treatment or prevention of tomato flu. Further follow-up and monitoring for serious outcomes and sequelae is needed to better understand the need for potential treatments [5,6].



Figure:03



Figure:04



Figure:05



Figure:06

CONCLUSION:

If the tomato flu outbreak in children is not managed and avoided, transfer to adults might have significant repercussions. Young children are also vulnerable to this infection due to the usage of diapers, touching filthy surfaces, and putting objects straight into their mouth. Tomato flu, like other kinds of influenza, is infectious. Dengue, chikungunya, zika virus, varicella-zoster virus, and

herpes are all diagnosed using molecular and serological assays. As a result, thorough isolation of confirmed or suspected patients, as well as other preventative measures, are required to prevent such an outbreak.

ABBREVIATIONS:

COVID-19 - Corona Virus Diseases-19
SARS-CoV-2 - Severe acute respiratory syndrome.
HFMD- Hand, foot and mouth diseases.

Conflicts of Interest: The authors declare no conflict of interest.

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