

## ABOUT NIPAH VIRUS

KAUSHIK BHARATI\*

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*Nipah virus (NiV) is a deadly virus that causes Nipah encephalitis and is spread by fruit bats, with pigs acting as intermediate hosts. The virus was first isolated in 1998 from a NiV-infected patient in Malaysia. In India, the first NiV outbreak occurred in Siliguri in 2001, followed by the Nadia outbreak in 2007, and the recent third outbreak in Kozhikode. NiV is a highly virulent and contagious virus that can cause high fatalities. The virus can be detected by ELISA and RT-PCR, based on which a specific diagnosis can be made. There is no definitive treatment for Nipah disease and is managed by supportive care only.*

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**N**ipah virus (NiV) recently hit the headlines as a result of an outbreak in Kozhikode in Kerala. There were a total of 18 NiV+ cases with 17 deaths. As of 11<sup>th</sup> June, 2018, the outbreak has been declared to be over by the Kerala Health Ministry<sup>1</sup>. Of note is the fact that this is not the first outbreak of Nipah on Indian soil. In fact, this is the third, preceded by the Siliguri outbreak in 2001<sup>2</sup> and the Nadia outbreak in 2007<sup>3</sup>, both in West Bengal. Naturally, there has been heightened curiosity amongst the general public – bordering on panic – due to the Kozhikode outbreak. There are many misconceptions about the virus, which stems from the fact that since Nipah outbreaks are few-and-far-between, not much information is available in the public domain. Therefore, the present article is aimed at providing an overview of Nipah disease, presenting the established facts and simultaneously weeding out the misconceptions that are currently prevalent in society.

### **What is Nipah Virus?**

Nipah virus is named after a village called Kampung Sungai Nipah in Malaysia, where it was first isolated from a NiV-infected patient in 1998, who eventually died from the infection. Nipah virus is an RNA (ribonucleic acid) virus, which belongs to the Family *Paramyxoviridae* and

Genus *Henipavirus*. Nipah virus encephalitis is an important emerging zoonotic disease that is spread by fruit bats (also known as ‘flying foxes’), which belong to the Family *Pteropodidae* and Genus *Pteropus*. These bats are the natural hosts of the virus.

### **Nipah Virus Outbreaks**

There have been several major outbreaks of NiV in the past, which are briefly highlighted below:

**First Outbreak of Nipah – Malaysia:** The first outbreak of Nipah occurred in 1998 in peninsular Malaysia during September 1998 to April 1999<sup>4</sup>. A total of 265 NiV encephalitis cases were reported from Malaysia. All these patients had close contact with infected pigs or infected patients. Nipah disease was so devastating to the pig population that over 1 million pigs were culled to control the outbreak in Malaysia. Importantly, huge economic losses and adverse social disruption occurred in the aftermath of the outbreak.

In March 1999, the virus spread to Singapore, where 11 abattoir workers contracted the disease from imported pigs from Malaysia<sup>5</sup>. Of note is the fact that, since May 1999, no new NiV outbreaks have been reported from Malaysia or Singapore till date. However, evidence of the virus, without clinical disease, has been found in fruit bats in Madagascar, Cambodia, Thailand, Timor-Leste, and Indonesia.

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\* Public Health Consultant, New Delhi,  
e-mail: dr.kaushik.bharati@gmail.com