

Editorial

Nipah Virus: The Recent Outbreak in India

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Editorial

The outbreak of the NiV in India in the state Kerala has been unexpectedly jolting the health officials. For a state that's attuned to fever-related cases every monsoon, battling the NiV was a different experience.

The nipah virus outbreak in Kerala state has created a menace in India recently. India faced the first outbreak in 2001 in Siliguri of West Bengal and the second outbreak in 2007 in the Nadia Districts. Total 71 cases were affected in the two outbreaks with a death of 50 affected persons. This indicates the high case fatality rate of the virus.

The first question is what is Nipah virus, According to the World Health Organisation (WHO), it is a zoonotic pathogen (transmitted from animals to humans) reported for the first time in Malaysia in 1998 in a village known as Kampung Sungai Nipah. The virus's natural hosts are considered to be fruit bats of the Pteropodidae Family, Pteropus genus. Although it has been found to have been transmitted to humans from pigs as well as seen in Malaysia. In later outbreaks in Bangladesh, people were found to have been infected after consuming date palm sap that was contaminated by virus-carrying fruit bats. The virus can be transmitted from humans to humans as well.

Air-borne transmission of the virus does not occur. WHO says humans could get infected if they come in direct contact with 'sick pigs or their contaminated tissues.' Secretions from fruit bats or pigs and droplets can also lead to transmission.

Influenza-like symptoms such as fever, headaches, sore throat, vomiting, dizziness and muscle pain are the symptoms associated with the viral infection. The incubation period, or the period from infection to first symptoms, is generally 4-14 days though health officials say it can extend to 60 days as well.

Since encephalitic-symptoms are seen in NiV, the fundamental mode of treatment is limited to intensive supportive care for neurological and respiratory complications.

As till date no cure/vaccine has been invented yet, treatment is limited to intensive supportive care which basically means treating the symptoms individually. For example, someone complaining of breathlessness can be put on artificial ventilators.

There have been two previous outbreaks of the NiV occurred in India in the state of West Bengal in 2001 and 2007, first in Siliguri and then in Nadia districts. A total of 71 cases were reported in the two incidents sparking 50 fatalities indicating the high mortality rate

of the virus.

The source of the viral outbreak in Kerala is believed to have originated in the Changaroth panchayat in Kozhikode district of northern Kerala. The first fatality, believed to be of the virus but not confirmed, was that of Mohammad Sabith, 23, on May 5 this year. Two weeks later, his elder brother and paternal aunt too succumbed to the illness, both of whom were tested positive for the virus. It was on the evening of May 20 that the blood and fluid samples of the two victims came back positive from the department of virus research at the Manipal Academy of Higher Education which was seconded by the National Institute of Virology in Pune.

Till now a total of 17 fatalities have been recorded, It is a serious health crisis for the state but doctors say that the virus has been largely contained and that all the fatalities can be tied to one single family. Since human-to-human contact is necessary for transmission, all the casualties were those who came in contact with the initial victims who were infected. Most of the deaths occurred at the Kozhikode Medical College where they were admitted.

Samples of fruit bats and pigs, caught from Changaroth by doctors, sent for testing to identify the carrier came back negative from Bhopal. It is not clear how or from where the first victim, got transmitted. Doctors say it could be a matter of time before it is confirmed.

As soon as NiV infection was established, the health department proceeded to upgrade the safety protocols at the Kozhikode Medical College where the infected would be brought. Medical professionals working at local hospitals were given protective gear in dealing with patients. The panchayat, the epicentre of the virus, was directed by the department to conduct ward-level awareness meetings through ASHA and Anganwadi workers to dispel doubts of the people. The state reached out to the Centre for assistance in response to which the latter promptly sent a team headed by the director of National Centre for Disease Control (NCDC). A team from AIIMS also visited the affected areas and took samples for testing. Meanwhile, all those who reported fever-like symptoms were brought to Medical College and isolated in wards. The Kerala government is also supplying Ribavirin, known for its anti-viral properties.

Currently, there are no specific treatments available for Nipah virus disease and care is supportive.

In health care settings, staff should consistently implement standard infection prevention and control measures when caring for patients to prevent nosocomial infections. Health care workers caring for a patient suspected to have NiV fever should immediately contact local and national experts for guidance and to arrange for laboratory testing.

Research is needed to better understand the ecology of bats and NiV. WHO advises against the application of any travel or trade restrictions on India based on the information currently available on

this event. More advanced research is necessary regarding the ecology of the bats and virus to prevent such dreadful infection in future [1-4].

References

1. <https://indianexpress.com>
2. <http://www.nytimes.com/2018/06/04/health/nipah-virus-India-vaccine-epidemic.html>
3. www.who.int/csr/disease/nipah/en/
4. <http://www.cdc.gov/vhffnipah/index.html>