

Nipah Virus: Everything about the Virus that's Taking Lives in Kerala!

M. Muthu Priya¹, M. Hemamalini²

Abstract

Kerala has been on high alert due to mysterious deaths of peoples because of an unidentified viral attack. Out of these, three were reported to be caused by Nipah Virus (NiV). As per the National Institute of Virology, Pune, Nipah Virus is the sole cause of these three deaths. The Nipah virus (NiV) has claimed ten lives, including a nurse who left a heartbreaking note to her family, in Kerala. Around two more have been confirmed to have contracted the disease, and 40 others have been quarantined. An unheard virus, NiV is yet to be understood by many. Here is what the virus is all about.

Keywords: Nipavirus; Virology; Quarantine; Transmission; Infection.

Introduction

A newly emerging zoonosis infection Nipah virus (NiV) which causes severe disease affecting both animals and humans. Fruit bats are the natural host for this virus that belongs to Pteropodidae Family, Pteropus genus [1].

Incidence

In 1998, Kampung Sungai Nipah, Malaysia, NiV was first identified during an outbreak of disease. During that incidence, pigs were the intermediate hosts. Later, in subsequent NiV outbreak, no other intermediate hosts was reported. In India, the first outbreak occurred in the state of West Bengal and fruit bats was identified as solely hosts. Human-to-human transmission has also been documented, including in a hospital setting in India [1]. In Bangladesh in 2004, humans became infected with NiV as a result of consuming date palm sap that had been contaminated by infected fruit bats.

Incubation

The incubation period for Nipha virus is about 5 to 14 days and symptoms will be visible after this period.

Author's Affiliations: ¹Assistant Professor ²Vice Principal, Hindu Mission College of Nursing, Chennai, Tamil Nadu 600045, India.

Corresponding Author: M. Muthu Priya, Asst. Professor, Hindu Mission College of Nursing, Chennai, Tamil Nadu 600045, India.

E-mail: mpmuthupriya@gmail.com

Received on 12.07.2018, Accepted on 17.09.2018

Mode of Transmission

Consuming partially-eaten fruits by bats those are infected and partially-cooked meat of infected animals can also trigger the virus. Drinking juices like date palm sap, toddy, juice can also cause the infection [2] the virus spreads directly from human-to-human by close contact with people's secretions and excretions.

Signs and Symptoms

The symptom is usually asymptomatic and the infection may leads to even acute respiratory syndrome and fatal encephalitis.

The symptoms of Nipah Virus are

- Fever,
- sore throat,
- severe headache
- confusion,
- disorientation,
- nausea,
- persistent drowsiness
- stomach pain,
- muscle pain (myalgia),
- vomiting,
- fatigue and
- blurred vision

It may also leads to coma in 24-48 hours.

These symptoms can last up to 7-10 days.

Prevention

Non-vaccination efforts will perhaps play an important role in controlling NiV disease. Prevention is better than cure.

- Regular handwashing with soap
- Have a safe protected physical contact with infected people
- Consuming partly eaten fruits or unpasteurized fruit juices to be avoided
- Pet animals to be protected
- Boil and eat freshly collected date palm juice
- Wash and peel fruits before consuming
- Maintain personal hygiene
- Wash, peel and cook all fruit thoroughly before eating
- Households should be covered properly
- Use NH 95-grade and higher masks [2]

While transporting the dead body of the person after death contracting Nipah fever, cover the person's face. relatives should try refrain from hugging or kissing the dead person and should take utmost care while bathing the body before cremation or burial.

Treatment

Must watch out for respiratory illness during the early stages [3]. Currently, no drug available for humans or animals. Intensive supportive care

for people suffering from severe respiratory and neurologic complications [2]. Tackling risk factors may be more effective than vaccines themselves.

Vaccination

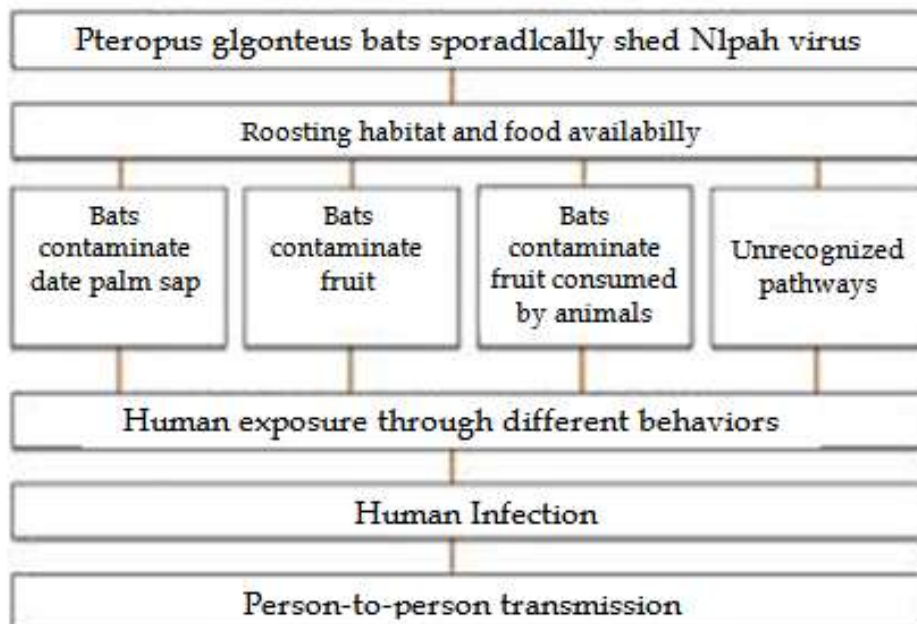
Vaccine has been on trail by WHO. The vaccine in form of recombinant sub-unit formulation has proven successful in (animals) cats. Canarypox vectored Nipah F and G vaccine has appeared promising for preventing infection in swine and also has potential vaccine for humans.

Why are Bats Suddenly Turning Dangerous?

As per the WHO, "There is always a strong evidence that emergence of bat-related viral infection communicable to humans and animals has been due to the inavailability of natural habitats of bats. Because of human activity, the flying fox habitat is destroyed, bats become stressed and hungry, their immune system gets weaker, their viral load goes up and a lot of virus spills out in their urine and saliva." This proves that ultimately, what is at blame is human activity only.

Conclusion

Over the last two decades, research has provided insight into the mechanisms of pathogenesis and transmission of NiV. The advancement of this understanding, and, more importantly, practical



applications of it in the form of vaccines for NiV entering human clinical trials, prevention of infection through modifying risk factors and in the development of therapeutics and techniques capable of treating infected patients to reduce morbidity and mortality in the forth coming decades.

References

1. <http://www.who.int/csr/disease/nipah/en/>
 2. <https://economictimes.indiatimes.com>
 3. <https://www.livemint.com/>
 4. <https://www.thenewsminute.com>
 5. <https://www.practo.com/consult/nipah-virus>
 6. <https://www.cdc.gov/>
-

Community and Public Health Nursing

Library Recommendation Form

If you would like to recommend this journal to your library, simply complete the form below and return it to us. Please type or print the information clearly. We will forward a sample copy to your library, along with this recommendation card.

Please send a sample copy to:

Name of Librarian

Name of Library

Address of Library

Recommended by:

Your Name/ Title

Department

Address

Dear Librarian,

I would like to recommend that your library subscribe to the **Community and Public Health Nursing**. I believe the major future uses of the journal for your library would provide:

1. useful information for members of my specialty.
2. an excellent research aid.
3. an invaluable student resource.

I have a personal subscription and understand and appreciate the value an institutional subscription would mean to our staff.

Should the journal you're reading right now be a part of your University or institution's library? To have a free sample sent to your librarian, simply fill out and mail this today!

Stock Manager

Red Flower Publication Pvt. Ltd.

48/41-42, DSIDC, Pocket-II

Mayur Vihar Phase-I

Delhi - 110 091(India)

Phone: Phone: 91-11-45796900, 22754205, 22756995, Cell: +91-9821671871

E-mail: sales@rfppl.co.in

Instructions to Authors

Submission to the journal must comply with the Guidelines for Authors.
Non-compliant submission will be returned to the author for correction.

To access the online submission system and for the most up-to-date version of the
Guide for Authors please visit:

<http://www.rfppl.co.in>

Technical problems or general questions on publishing with CPHN are supported
by Red Flower Publication Pvt. Ltd's Author Support team ([http://rfppl.co.in/
article_submission_system.php?mid=5#](http://rfppl.co.in/article_submission_system.php?mid=5#))

Alternatively, please contact the Journal's Editorial Office for further assistance.

Editorial Manager
Red Flower Publication Pvt. Ltd.
48/41-42, DSIDC, Pocket-II
Mayur Vihar Phase-I
Delhi - 110 091(India)
Mobile: 9821671871, Phone: 91-11-22754205, 45796900, 22756995
E-mail: author@rfppl.co.in