Nipah virus

Nipah virus is a virus, which transmits from animals to humans (zoonosis) and also between people. The natural host of Nipah virus are specific bats, called Pteropus (flying foxes or fruit bats).

Nipah virus infections have been reported in coastal regions and on several islands in the Indian Ocean, India, Southeast Asia, Bangladesh, and Malaysia. The World Health Organization has designated Nipah virus as a priority disease, actively promoting the search for treatment solutions.

Cause

The cause of the disease is Nipah virus.

Reservoir

Bats, known as Pteropus or flying foxes, are a reservoir for the Nipah virus.

Transmission

The virus is transmitted by Pteropus bats and pigs. We can become infected through direct contact with infected animals, such as bats or pigs; by consuming fruit or juices that have been contaminated with the virus by bats and other infected animals; or through close contact and bodily fluids of an infected person.

Incubation period

The incubation period (the time between infection and the onset of the first symptoms/signs of the disease) lasts from 4 to 14 days.

Symptoms and signs of the disease

Infection with the Nipah virus can be mild or severe. Most patients experience fever, headache, nausea, vomiting, sore throat, breathing difficulties, and muscle pain. This may be followed by dizziness, confusion, and impaired consciousness. In severe cases, epileptic seizures and brain inflammation (encephalitis) may occur, which can progress to coma and even death within 24 to 48 hours. The mortality rate is between 40% and 75%, depending on the strain of the virus.

Infectiousness

It is assumed that a person can be infectious for up to 21 days after the onset of the first symptoms.

Diagnosis

Nipah virus infection can be diagnosed by laboratory tests in individuals with clinical symptoms and a history of travel to affected areas. To detect infection, we can use a test (RT-PCR) from body fluids and a test to detect antibodies with an enzyme-linked immunosorbent assay (ELISA). Diagnostics are also available in Slovenia and are performed at the Institute of Microbiology and Immunology (IMI) of the Faculty of Medicine in Ljubljana.

Treatment

There is currently no medicine or vaccine to prevent infection with the Nipah virus. Treatment involves rest, fluid replacement, and relief of other symptoms, as well as supportive care.

Prevention

Currently, the only way to prevent infection is to raise awareness among travellers about risk factors and educate people about protective measures they can take themselves to reduce the possibility of infection with the Nipah virus. The focus should be on preventing transmission of the virus: from bats to humans (avoiding areas where bats live, thoroughly cleaning local fruit before consumption – fruit with signs of bat bites should be discarded); from infected animals to humans; and from humans to humans (avoiding close contact with infected persons and maintaining good personal and general hygiene).

Travellers to areas where the Nipah virus is active should follow these tips to reduce their risk of infection:

- Wash your hands frequently with soap and water.
- Avoid contact with bats (Pteropus) or infected pigs.
- Avoid environments where bats live or sleep.
- Do not touch anything that could be contaminated by bats.
- Avoid eating raw fruits or drinking freshly squeezed juices that could be contaminated by bats.
- Avoid contact with the blood or bodily fluids of infected individuals.