

NIPHA VIRUS

About: -

- Nipha virus is a bat borne, Zoonotic (infections that are spread between humans and animals).
- Nipha virus has high mortality rate.
- Outbreak of Nipha virus occurred in North east Africa and southeast Asia.
- Nipha virus belongs to the genus, *Henipavirus*.

Virus Classification: -→

Category	Name
Realm	<i>Riboviria</i>
Kingdom	<i>Orthonavire</i>
Phylum	<i>Negarnaviricota</i>
Class	<i>Monjiviricetes</i>
Order	<i>Mononegavirales</i>
Family	<i>Paramixoviridae</i>
Genus	<i>Henipavirus</i>
Species	<i>Nipha virus</i>

Virology: -

- Nipah virus belongs to the Genus Henipavirus, which is a single stranded negative RNA virus.
- Nipha viruses are structurally has different in shapes like filamentous or spherical.
- They are enveloped in Nucleocapsid.
- Six structural proteins are generated: -

- N (Nucleocapsid)
- P (phosphoprotein)
- M (Matrix)
- F (Fusion)
- G (Glycoprotein)
- L (RNA polymerase)

Receptors: -

- Ephrin B2
- Ephrin B3
- Ephrins are the ligands to Eph receptors and stimulate bi-directional signalling of the Eph/ephrin axis
- Eph/ephrin signalling regulates cell–cell adhesion and cell–matrix adhesion by impinging on formation/stability of tight, adherens, and gap junctions, as well as on integrin function.

Symptoms: -

- Fever
- Head ache
- Muscle pain
- Vomiting
- Sore throat

Conditions: -

- Dizziness
- Drowsiness

- Altered consciousness
- Acute encephalitis
- Atypical pneumonia
- Severe respiratory distress
- Seizures

Treatment: -

- Currently there are no licensed treatments available for Nipah virus infection.
- Treatment is limited to supportive care, including rest, hydration, and treatment of symptoms as they occur.
- There are, however, immunotherapeutic treatments (monoclonal antibody therapies) that are currently under development and evaluation for treatment of Nipah virus infections.
- In addition, the antiviral treatment remdesivir has been effective in nonhuman primates when given as post-exposure prophylaxis, and may be complementary to immunotherapeutic treatments.
- The drug ribavirin was used to treat a small number of patients in the initial Malaysian Nipah virus infection outbreak, but its efficacy in people is unclear.

Prevention: -

- Practice handwashing regularly with soap and water
- Avoid contact with sick bats or pigs
- Avoid areas where bats are known to roost
- Avoid eating or drinking products that could be contaminated by bats, such as raw date palm sap, raw fruit, or fruit that is found on the ground
- Avoid contact with the blood or body fluids of any person known to be infected with Nipah virus infection