

Antibodies against Nipah Virus in Bats

Why in News

A recent survey has found the **presence of** antibodies against the **Nipah virus (NiV)** in some **bat species** from a cave in **Mahabaleshwar**, a popular hill station in **Maharashtra**.

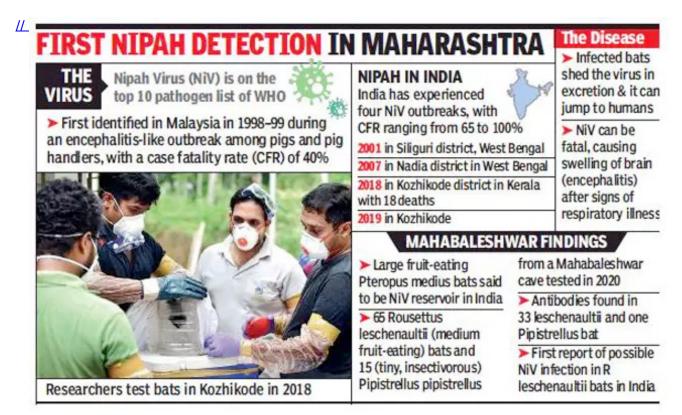
■ The survey was conducted by the <u>Indian Council of Medical Research (ICMR)</u> - **National Institute** of Virology (NIV).

Key Points

- About the Survey:
 - The NIV team looked at **Rousettus leschenaultii and Pipistrellus pipistrellus bats** that are common in India.
 - Pteropus medius bats, which are large fruit-eating bats, are the reservoir for NiV in India as both NiV RNA and antibodies were detected in the samples of these bats collected during previous NiV outbreaks.
 - A bat's immune system is especially adept at withstanding viral infection because of
 its ability to limit excessive inflammation which uniquely allows viruses to thrive
 without proving deadly to the mammal.
- Nipah virus (NiV):
 - About:
 - It is a **zoonotic virus** (it is transmitted from animals to humans).
 - The organism which causes Nipah Virus encephalitis is an RNA or Ribonucleic acid virus of the family Paramyxoviridae, genus Henipavirus, and is closely related to Hendra virus.
 - Hendra virus (HeV) infection is a **rare emerging zoonosis** that causes severe and often fatal disease in both **infected horses and humans.**
 - It first broke out in Malaysia and Singapore in 1998 and 1999.
 - It **first appeared in domestic pigs** and has been found among several species of domestic animals including dogs, cats, goats, horses and sheep.
 - Transmission:
 - The disease **spreads through** <u>fruit bats</u> **or 'flying foxes,' of the genus Pteropus,** who are natural reservoir hosts of the Nipah and Hendra viruses.
 - The virus is present in bat urine and potentially, bat faeces, saliva, and birthing fluids.
 - Symptoms:
 - The human infection presents as an <u>encephalitic syndrome</u> marked by fever, headache, drowsiness, disorientation, mental confusion, coma, and potentially death.

Prevention:

• Currently, there are **no vaccines** for both humans and animals. Intensive supportive care is given to humans infected by Nipah virus.



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