Hantavirus Outbreak

Prelims: *Current events of national and international importance | Health*

Why in News?

Recently, The World Health Organization (WHO) has confirmed five hantavirus cases and three fatalities aboard a cruise ship in the Atlantic, near Cape Verde.

Hantavirus

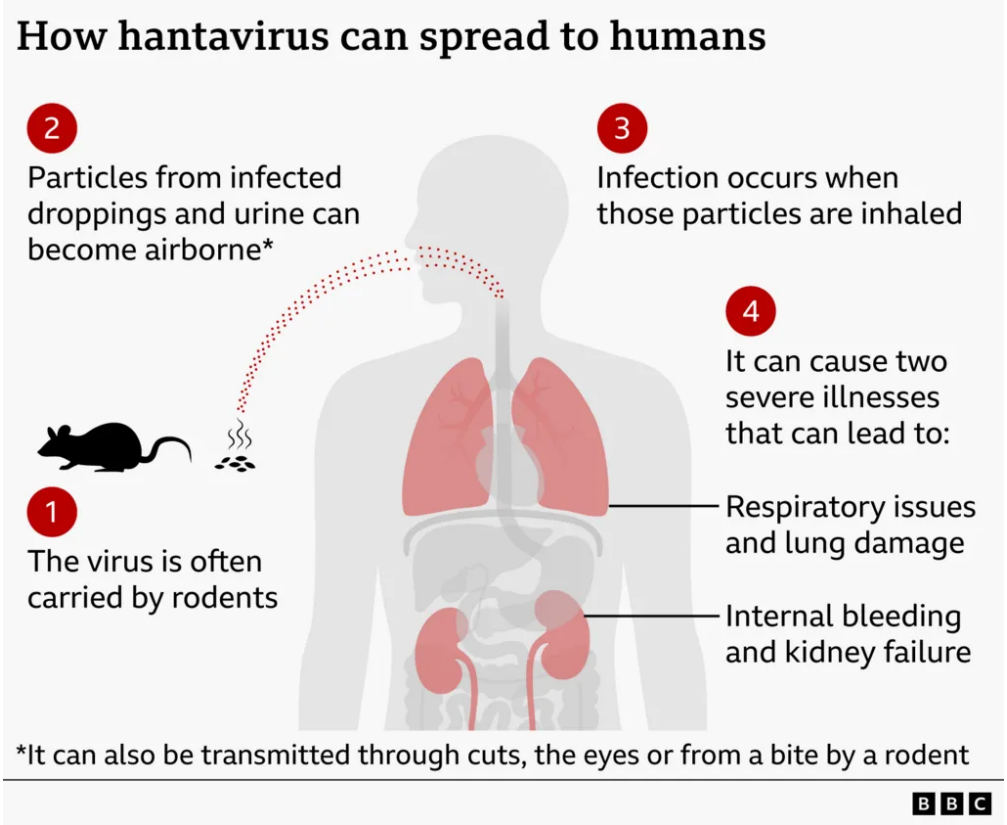
- Hantaviruses are rodent-borne viruses transmitted via urine, droppings, or saliva, causing severe human disease.
- The species of hantavirus involved in this case is the Andes virus.
- **Diseases Caused**
  - **Hantavirus Pulmonary Syndrome (HPS) –** Severe respiratory illness.
  - **Hemorrhagic Fever with Renal Syndrome (HFRS) –** Primarily affecting the kidneys and causing vascular leakage.
- **Global Spread** – Found in Europe, Africa, Asia, and the Americas (North, Central and South).
- **Transmission –** Primarily through inhalation of aerosolised rodent droppings; *not easily spread person-to-person.*

Andes virus is the only hantavirus species known to spread between humans.

Diagnosis

- ***Serology (ELISA) –*** Detects Immunoglobulins (IgM) antibodies produced at the onset of infection; standard method to confirm active cases of HPS and HFRS.
- ***Reverse Transcription – Polymerase Chain Reaction (RT-PCR) –*** Identifies viral RNA directly in blood; useful in the very early acute phase, even before antibodies appear.

ELISA looks for antibodies, RT-PCR looks for the virus's genetic material.



Symptoms

- **Incubation** – 1–8 weeks post exposure.
- **Early Phase** – Flu-like symptoms – fever, muscle aches, fatigue, headache, mild diarrhoea.
- **Severe Phase** – Respiratory distress, coughing, chest tightness, pneumonia-like signs; can progress to acute respiratory failure.
- **Recovery –** Survivors may take weeks to months to fully recover from fatigue and lung damage.
- **Fatality Window –** Deaths often occur within days of severe respiratory distress if not treated promptly.

Treatment

- *No Vaccine / Specific Antiviral available.*
- **Supportive Care** – Hospitalisation, oxygen therapy, respiratory assistance, IV fluids.
- **Early Detection** – Crucial to prevent progression to severe respiratory distress.
- **Prevention** – Rodent control, sanitation, avoiding exposure to rodent habitats.

References

1. The Hindu | Hantavirus
2. BBC | Hantavirus



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