Marburg Virus Disease (MVD)

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Why in News?

The World Health Organization (WHO) has confirmed a new case of Marburg Virus Disease (MVD) in Uganda.

- Marburg virus disease (MVD), formerly known as Marburg haemorrhagic fever, is a severe, often fatal illness in humans.
- **First detection –** It was initially detected in 1967 after two simultaneous outbreaks in Marburg and Frankfurt in Germany, and in Belgrade, Serbia.
- **Causative agents -** Marburg virus (MARV) and Ravn virus (RAVV) of the species Orthomarburgvirus marburgense are the causative agents of Marburg virus disease (MVD).
- Both viruses are part of the ***Filoviridae family (filovirus)*** to which Orthoebolavirus genus belongs.
- Though caused by different viruses, *Ebola and Marburg diseases are clinically similar.*
- **Host -** Rousettus aegyptiacus, a ***fruit bat*** of the Pteropodidae family, is considered the natural host of Marburg virus.
- **Transmission**
  - **Zoonotic Reservoir (Animal-to-Human) -** Primarily transmitted to humans via prolonged exposure to mines or caves inhabited by colonies of Rousettus fruit bats.
  - **Human-to-Human Spread -** Occurs through direct contact with the blood, secretions, organs, or other bodily fluids of infected people, or via surfaces/materials contaminated with these fluids.
- **Incubation Period-** Varies from 2 to 21 days.
- **Symptoms -** Onset is sudden and severe, beginning with high fever, debilitating headache, extreme malaise, and muscle aches.
- By day 3, patients typically experience severe watery diarrhea, abdominal pain, and cramping.
- **Hemorrhagic Phase -** Severe hemorrhagic manifestations (internal and

external bleeding, often from multiple areas) develop between days 5 and 7.

- **Diagnosis -** It can be difficult to clinically distinguish MVD from other infectious diseases such as malaria, typhoid fever, shigellosis, meningitis and other viral haemorrhagic fevers.
- **Fatality-** The average case fatality rate (CFR) hovers around **50%**, but has historically reached up to 88%, depending on the viral strain and case management.
- **Treatment -** There are currently ***no officially approved antiviral treatments or vaccines*** for Marburg virus.
- **Clinical Trials** - Investigational candidates (such as Sabin's *cAd3-Marburg vaccine*) are undergoing active clinical trials.

Reference

Reuters | Marburg Virus Disease

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