West Nile Fever (WNF)

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

Why in News?

The Health authorities have sounded a caution following suspected cases of West Nile fever (WNF) in Ernakulam.

- **West Nile Fever** – It is a *mosquito-borne viral infection* caused by *West Nile Virus*.
- **Global Spread** – It is found in Africa, Europe, the Middle East, North America, and Asia, first identified in Uganda (1937).
- **Transmission** – West Nile virus, a flavivirus primarily transmitted by *Culex mosquitoes*.
- **Host** – The birds are the natural hosts, whereas humans and horses are "dead-end" hosts.
- **Symptoms**
  - **Asymptomatic** – Approximately 80% of infected individuals show no symptoms.
  - **Mild Infection** – Approximately 20% experience fever, severe headache, body aches, joint pain, vomiting, diarrhoea, or rash.
  - **Severe Infection** (Neuroinvasive Disease) – Less than 1% develop severe complications, including meningitis, encephalitis, or acute flaccid paralysis.
- **Risk Groups** – People over 50 and immunocompromised individuals are at higher risk of severe illness.
- **Duration** – Mild symptoms typically last a few days; however, recovery from fatigue and weakness can last several weeks or months.
- **Diagnosis** – Key tests include IgM antibody ELISA, PCR for viral RNA, virus isolation in labs & via samples like blood or cerebrospinal fluid (CSF).
- **Treatment** – There is *no specific antiviral treatment or vaccine* available *for humans*, whereas a vaccine is available for horses.
- **Supportive care** – Hospitalisation, IV fluids, respiratory support, pain relief, prevention of secondary infections.
- **Prevention**
  - Use mosquito repellent containing DEET or picaridin.
  - Wear long-sleeved shirts and long pants, particularly at dawn and dusk.
  - Eliminate standing water around homes to reduce mosquito breeding sites

References

1. The Hindu | Suspected West Nile fever cases trigger health warning
2. WHO | West Nile Virus



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