Viral Meningitis

Why in News?

Five Students from Kerala are being treated after showing symptoms of Viral Meningitis.

Meninges are protective membranes that cover the brain and spinal cord.

- **Meningitis** - *Inflammation of Meninges*, caused by bacterial, viral, or fungal infections.
- **Viral Meningitis -** Viral meningitis is generally less severe than bacterial meningitis and commonly resolves without complications.
- **Causes -** Many viruses can cause meningitis. The most common are enteroviruses, responsible for over 85% of cases. Other causes include
  - Herpes simplex virus (HSV-1 and HSV-2)
  - Varicella-zoster virus (VZV, chickenpox virus)
  - Mumps virus
  - Cytomegalovirus (CMV)
- Examples of viral causes include Japanese encephalitis, Nipah virus infection, and rabies.
- **Symptoms -** Viral meningitis include fever, headache, nausea or vomiting, discomfort while looking at light (photophobia)
- In young children, symptoms may be less specific and include irritability, poor feeding, or lethargy.
- **Diagnosis -** Early suspicion and testing are crucial for diagnosis.
- **CSF analysis -** A lumbar puncture (spinal tap) is performed to collect cerebrospinal fluid (CSF), which surrounds the brain and spinal cord.
- It helps ***distinguish between viral, bacterial, or other causes*** of meningitis.
- If viral meningitis is suspected, specific viruses can be identified using ***RT-PCR*** (reverse transcription polymerase chain reaction), which detects viral genetic material.
- **Prevention -** Hygiene and sanitation plays a key role in reducing its spread.
- **Treatment -** The treatment of viral meningitis is supportive. Close observation, pain relief, fluid management and attention to nutrition are essential.
- Most cases of viral meningitis resolve on their own within a week or two.
- Nearly all cases of viral meningitis recover fully without long-term effects.

Quick Facts

• **Bacterial meningitis –** It is a medical emergency requiring immediate diagnosis and antibiotic treatment.
• If treated early, bacterial meningitis has good outcomes.
• However, delays in diagnosis can lead to severe complications such as hearing loss, cognitive impairment, neurological issues, or even death.
• **Encephalitis –** It occurs when the *brain tissue itself becomes inflamed* due to an infection.
• Patients with encephalitis may experience seizures, confusion, disorientation, and even loss of consciousness.
• **Vaccines -** Effective vaccines are available against the 2 most common bacteria that cause meningitis, the pneumococcus and meningococcus.
• Vaccination against mumps and chickenpox prevents infection by these two viruses, which are known to occasionally cause meningitis.

References

1. The Hindu | Viral Meningitis
2. WHO | Viral Meningistis

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