

SYMPTOMS

Meningoencephalitis is a serious and potentially life-threatening condition that involves inflammation of the brain and the membranes surrounding it, known as meninges. It can be caused by a variety of different pathogens, with viral causes being the most common. Symptoms of meningoencephalitis can vary depending on the cause and severity of the infection, but include the following ^[1].

- Fever
- Headache
- Stiff neck
- Light sensitivity
- Seizures
- Vomiting

Neurological signs such as: confusion, behavioural changes, audio-visual hallucinations, loss of consciousness and delirium, may develop as these symptoms get worse ^[2]. Note that in severe cases, meningoencephalitis can also lead to coma and death.



TRANSMISSION

Distribution and Spread

As mentioned, meningoencephalitis is caused by a variety of pathogens, including viruses, bacteria, and fungi; as such, the disease itself is a manifestation of such infection. Therefore the disease itself is not transmissible, however, the causative agents can be spread through a variety of routes, including aerosol or respiratory secretions, insect bites, contaminated food or water, or close contact with an infected person ^[3]. Meningoencephalitis may also be a manifestation of an auto-immune disorder.

RECOMMENDATION

Treatment

Treatment of meningoencephalitis is focused on resolving the underlying cause through targeted therapy, involving a combination of antibiotics or antiviral medications depending on the cause. Additional supportive care is also important, including fluid replacement and medications to control seizures or reduce inflammation. Severe manifestations of disease require urgent hospitalisation.

Prevention

Vaccines are available for certain pathogenic agents, such as meningococcal vaccine and tick-borne encephalitis vaccine. Otherwise, prevention is dependent on good hygiene practices, including:

- Frequent hand washing, using soap and hot water
- Avoiding contact with infected individuals
- Practicing safe sex, preventing herpes virus infection, as this is a possible cause

1. Meningitis [Internet]. Centers for Disease Control and Prevention. 2019. Available from: <https://www.cdc.gov/meningitis/index.html> (accessed December 28, 2022).
2. Herpes Meningoencephalitis [Internet]. 2019. Available from: <https://www.hopkinsmedicine.org/health/conditions-and-diseases/herpes-hsv1-and-hsv2/herpes-meningoencephalitis> (accessed December 28, 2022).
3. Encephalitis [Internet]. nhs.uk. 2017. Available from: <https://www.nhs.uk/conditions/encephalitis/> (accessed December 28, 2022).

Last reviewed: 28/12/2022