

Chandipura encephalitis

By Prav Prathapan, Encephalitis International and reviewed by Dr Priyanka Madaan, Associate Professor, Pediatrics, Amrita Institute of Medical Sciences and Research Centre, Faridabad, India

What is Chandipura encephalitis?

Chandipura encephalitis is a viral disease spread by sandflies and possibly other insects. Like other types of encephalitis, it is characterised by inflammation of the brain. The virus, Chandipura vesiculovirus (CHPV), was first isolated in 1965 from a patient in Chandipura village, Maharashtra, India.

Chandipura encephalitis primarily occurs in India, with outbreaks reported in several states including Gujarat, Maharashtra, and Andhra Pradesh. Cases have also been reported in Sri Lanka and West Africa. Between 2003 and 2019, India experienced multiple outbreaks affecting adults and children.

In July 2024, Chandipura virus was reported to have killed 38 children in India.

Symptoms

Chandipura encephalitis can affect people of all ages, but children between the ages of 2 and 16 seem to be more susceptible. After exposure to the virus, symptoms typically appear within a matter of days. The disease often progresses rapidly, with initial symptoms including high fever, severe headache, seizures, convulsions, and altered consciousness.

As the condition progresses, patients may experience vomiting, drowsiness, and coma. In severe cases, the disease can progress from initial symptoms to coma and death within 48 hours.

It's important to note that not all infected individuals develop severe symptoms. Some may have mild or no symptoms at all.

Diagnosis

Diagnosis of Chandipura encephalitis can be challenging due to its similarity to other forms of viral encephalitis. Methods used for diagnosis include blood tests to detect antibodies against the virus, PCR (Polymerase Chain Reaction) to detect viral RNA, and lumbar puncture to collect CSF (cerebrospinal fluid) and isolate the virus from the blood.

Brain scans such as CT or MRI may be used to rule out other conditions and assess the extent of brain inflammation, but they cannot definitively diagnose Chandipura encephalitis.

Treatment

There is no specific cure for Chandipura encephalitis. Treatment focuses on supporting the patient's body while it fights the infection, such as ventilation, management of fluid and electrolyte balance, controlling seizures, and prevention of secondary bacterial infections.

Patients with severe cases are typically treated in intensive care units (ICUs).

Outcomes

Chandipura encephalitis can be a severe disease with a high mortality rate, especially in children. In some outbreaks, fatality rates as high as 55-75% have been reported. However, the long-term effects on survivors are not well documented due to the limited number of studies on this disease.

Prevention

There is currently no vaccine available to prevent Chandipura virus infection.

The best prevention is to protect against and control the populations of sandflies. Preventative measures include wearing long-sleeved clothing especially during evening hours when sandflies are most active and applying repellents containing picaridin or DEET to exposed skin. Using bed nets treated with insecticides can also help. People who work, live or spend time outdoors in rural areas must be extra careful and try to limit outdoor activity. It is also important to improve sanitation and eliminate breeding sites for sandflies and implement vector control measures in affected areas.

Travelers to endemic areas should take precautions to avoid insect bites, particularly in rural or forested areas.

FS075V1 Chandipura encephalitis

Date created: July 2024 / Last updated: July 2024 / Review date: July 2027

Disclaimer: We try to ensure that the information is easy to understand, accurate and up to date as possible. If you would like more information on the source material and references the author used to write this document, please contact Encephalitis International. None of the authors of the above document has declared any conflict of interest, which may arise from being named as an author of this document.

Support our information

With our support, no one has to face encephalitis alone. Our advice and information are available free of charge to everyone affected but we are truly grateful when supporters feel able to contribute a little to the cost of these resources. Please donate today by visiting www.encephalitis.info/donate or text the word DOCTOR to 70085 to donate £5.

Thank you!

Encephalitis International, 32 Castlegate, Malton, North Yorkshire, YO17 7DT, UK

Administration: +44 (0) 1653 692583 **Support:** +44 (0) 1653 699599

Email: mail@encephalitis.info **Website:** www.encephalitis.info

Encephalitis International is the operating name of the Encephalitis Support Group.

Registered Charity England and Wales No: 1087843; Registered Charity in Scotland No: SC048210

Charitable Company registered in England and Wales No: 04189027