POWASSAN VIRUS DISEASE

AGENT: Powassan virus

WHERE FOUND
Cases have occurred primarily in northeastern states and the Great Lakes region.

INCUBATION PERIOD
1–4 weeks

SIGNS AND SYMPTOMS
- Fever, headache, vomiting, and generalized weakness
- Usually progresses to meningoencephalitis. May include meningeal signs, altered mental status, seizures, aphasia, paresis, movement disorders, or cranial nerve palsies.

GENERAL LABORATORY FINDINGS
- CSF findings include lymphocytic pleocytosis (neutrophils can predominate early), normal or mildly elevated protein, and normal glucose.

LABORATORY DIAGNOSIS
- Primarily through testing available at CDC and selected state health departments; limited commercial testing.
- Measurement of virus-specific IgM antibodies in serum or CSF. Cross-reaction with other flaviviruses (e.g., West Nile, dengue, or St. Louis encephalitis viruses) can occur; plaque reduction neutralization tests should be performed to confirm the diagnosis.
- RT-PCR may detect viral RNA in acute CSF specimens or tissues, but the sensitivity is unknown and this method should not be used to rule out the diagnosis.

TREATMENT
No specific antiviral treatment for Powassan virus disease is available. Patients with suspected Powassan virus disease should receive supportive care as appropriate.
REFERENCES
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