

Powassan virus encephalitis contracted during winter months

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In their article [“Powassan Encephalitis: A Case Report from New York, USA.”](#) Bazer and colleagues describe a male patient who was admitted to the hospital in December due to altered mental status, dysarthria, and a left facial droop.¹

The man also had a history of multiple medical problems including of a right putamen infarct, hepatitis C, hypertension, and substance abuse.

Clinicians considered a tick-borne disease since the patient had reported having several recent tick bites.

“The majority of patients who are infected with Powassan are asymptomatic. When patients are symptomatic from Powassan virus, they will present with encephalitis and altered sensorium.”

The virus can cause serious, long-lasting complications. “Roughly, 50% of patients will have long term neurological sequelae of Powassan virus, such as recurrent headaches, cognitive disruption, and focal neurological deficits.”

“It is estimated that the 10% of patients with Powassan will expire from the disease,” wrote the authors.

A spinal tap revealed pleocytosis and an elevated protein. “He was empirically treated for possible meningitis with ceftriaxone and acyclovir,” wrote the authors.

He was intubated for airway protection. Unfortunately, his illness was complicated by a recurrent stroke and the need for a feeding tube.

READ: [What is the Powassan Virus?](#)

The patient was also treated for axonal loss. “An Electromyography (EMG) and nerve conduction studies (NCS) showed a generalized axon loss with demyelinating polyradiculopathy. He received 2 courses of intravenous immune globulin because of mild demyelinating features on EMG/NCS,” wrote the authors.

“Although the peak incidence of transmission of the virus is in the summer and fall when the Ixodes species is most active, this does not exclude transmission in other seasons.”

Testing “confirmed the presence of active Powassan virus in CSF, a surrogate to diagnose Powassan encephalitis,” according to the authors.

At the time of discharge, notable neurological symptoms included global aphasia. It was not clear from the case report whether the aphasia was related to the Powassan virus disease or the stroke.

Authors' Takeaway:

- “Our patient’s diagnosis demonstrates the importance of obtaining a thorough tick exposure history.”
- “This case highlights the importance of obtaining Powassan serology in a patient with an unexplained altered mental status.”
- “It also demonstrates the importance of testing for the virus in the appropriate clinical scenario in Lyme-endemic areas, even outside of the normal tick season.”

Related Articles:

[Can Powassan virus cause encephalitis or other neurologic damage?](#)

[Maine woman dies from deer tick virus](#)

[Powassan virus infection causes polio-like illness](#)

References:

1. Bazer DA, Orwitz M, Koroneos N, Syritsyna O, Wirkowski E. Powassan Encephalitis: A Case Report from New York, USA. *Case Rep Neurol Med.* 2022;2022:8630349. doi:10.1155/2022/8630349

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