**Powassan (POW) Virus Disease**

**What is it?** Powassan is one of a group of arthropod-borne viruses (arboviruses) spread by infected ticks. The POW virus is an RNA virus that belongs to the genus *Flavivirus*. It is related to West Nile, St. Louis encephalitis, and Tick-borne encephalitis viruses. It is rare (roughly 75 cases were reported in the northeast and northern mid-west United States since 2006) but often serious.

**How is it diagnosed?**

Diagnosis of Powassan requires laboratory tests of blood or spinal fluid that detect antibodies that the immune system makes against the viral infection. Presence of antibodies

**What are the symptoms?**

Symptoms can include fever, headache, vomiting, weakness, confusion, loss of coordination, speech difficulties and seizures; however, some people experience no symptoms. The POW virus can cause encephalitis (inflammation of the brain) and meningitis (inflammation of the membranes that surround the brain and spinal cord). Death may occur.

**What is the treatment?**

There is no specific medicine to cure or treat POW virus disease. There is no vaccine against POW virus. Treatment for severe illnesses may include hospitalization, respiratory support, and intravenous fluids.

**How can I reduce my chances of getting infected?**

One should (1) walk in the middle of trails away from tall grass and brush; (2) wear shoes (no bare feet or sandals), long sleeves and long pants tucked into high socks; (3) wear light colored clothing to make it easier to see ticks; (4) wear a hat; (5) apply insect repellent containing *DEET* or *permethrin* on bare skin, clothing and shoes according to label instructions; (6) conduct a full-body check to find and remove ticks immediately before they have a chance to bite and attach; and (7) bathe or shower preferably within 2 hours after being outdoors.

**In the news...**

*"Desiree and Darrell Phillips' son Liam, 11 months, became the first known CT victim of rare and potentially deadly Powassan virus, a tick-borne disease he contracted last October. Liam was bitten by a tick that came home on his dad's clothing after hunting. After several weeks of illness, and misdiagnosis, Liam started having seizures and was flown by Life Star to Hartford Hospital. An infectious disease specialist, Dr. Nicholas Bennett, identified the problem as Powassan virus, for which there is no known cure as yet. Liam was kept on anti-seizure meds until February. Liam is now trying to walk and has no serious long-term damage." Hartford Courant, April 23, 2017*

**Works Cited**

Connolly, Erin, narrator. Mom of child with 1st case of Powassan Virus speaks to Channel 3. Edited by

Joseph Wenzel, WFSB Channel 3 Eyewitness News, 21 Apr. 2017, www.wfsb.com/clip/13268420/mom-of-child-with-1st-case-of-powassan-virus-speaks-to-channel-3.

"Powassan Virus." Centers for Disease Control and Prevention, U.S. Department of Health and

Human Services, 19 Apr. 2017, www.cdc.gov/powassan/faqs.html.