

Stroke as a manifestation of Lyme disease

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by Daniel J. Cameron, MD MPH

More than half of the cases were from three countries: 16 (25.4%) from Germany, 9 (14.3%) from Switzerland, and 8 (12.7%) from France. Five cases (8%) were from the United States, [notes Garkowski from the Medical University of Bia?ystok in Poland](#). [1]

Many of the cases involved relatively young patients, with more than 50% under the age of 50. The authors identified 15 pediatric cases, noting the youngest to be 4 years of age. Patients ranged between 4 and 77 years old with a median age of 46. Males represented 54% of all the cases.

The most common cerebrovascular manifestation of LNB was ischemic stroke (76.1%), followed by [transient ischemic attack] (11.4%), according to Garkowski. [1] “The posterior circulation was affected alone in 37.8% of patients, the anterior circulation in 24.4% of patients, and in 37.8% of cases, posterior and anterior circulations were affected simultaneously.”

A complete response to antibiotic treatment occurred in 75% of the patients. The authors defined a complete response as, “halted progression of the disease and no recurrence of cerebral ischemia or recuperation from neurological deficits.” The mortality rate was 4.7%. The outcome for the remaining 20% was incomplete or incomplete with residual neurologic deficit.

The authors suggest prompt evaluation of prodromal syndromes. “The lack of awareness of this manifestation of LNB might result in the delay of diagnosis, which might lead even to the patient’s death,” warns Garkowski. [1] “Several weeks/months before stroke onset, prodromal symptoms suggesting [LNB \[Lyme neuroborreliosis\]](#), such as meningitis, cranial neuritis or radiculoneuritis, should prompt extensive diagnostics including CSF [cerebrospinal fluid] examination.”

Takeaway: Physicians should consider cerebral vasculitis and stroke due to Lyme neuroborreliosis in patients living in or having visited areas endemic for tick-borne diseases, and in those individuals who don’t have any cardiovascular risk factors but who exhibit stroke-like symptoms with no known cause.

More on the topic:

[At least 50% of patients with Lyme neuroborreliosis remain ill years after treatment](#)

[What happens to the brain during acute Lyme neuroborreliosis?](#)

References:

1. Garkowski A, Zajkowska J, Zajkowska A, et al. Cerebrovascular Manifestations of Lyme Neuroborreliosis-A Systematic Review of Published Cases. Front Neurol. 2017;8:146.

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