

Lyme disease causes vision loss in 46-year-old woman

Monday, August 06, 2018

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A recent article published in the *Wisconsin Medical Journal* describes the case of a 46-year-old woman who experienced a sudden onset of bilateral vision loss and [paresthesias](#).

According to [Jha and colleagues from the Medical College of Wisconsin](#), the woman developed blurred vision, which progressively worsened over a 3-week period. [2] This reportedly began after she had upper respiratory tract symptoms. In addition, the woman had nausea, weakness, dizziness, and tingling/numbness in her lower extremities.

“After extensive workup, she was diagnosed with Lyme optic neuritis based on the clinical presentation and positive serology,” writes Jha.

Lyme disease and related tick-borne illnesses can cause a sudden blurring of vision and other eye problems.

Optic neuritis is inflammation of the optic nerve. The condition typically causes temporary vision loss in one eye and is often associated with multiple sclerosis (MS).

In this case, the vision loss was significant. Using the Snellen Eye Test Charts her visual acuity was 20/400 in both eyes. Color vision was impaired in both eyes, as well. “A dilated fundus exam demonstrated bilateral optic head edema, hyperemia, and optic nerve elevation concerning for intracranial hypertension,” according to Jha.

Other conditions were ruled out. “The inpatient workup ruled out posterior reversible encephalopathy syndrome, idiopathic intracranial hypertension, multiple sclerosis, meningitis (viral, fungal, tuberculosis, syphilis, and other bacterial), autoimmune process and cerebrovascular disease,” Jha states.

[Eye problems in tick-borne diseases other than Lyme](#)

The woman fulfilled the criteria for acute Lyme infection with a positive 2-tiered serology test (positive immunoassay). “Our case also fulfilled the criteria for acute Lyme disease with strong evidence of a causal link with optic neuritis, as described by Sibony,” writes Jha.

The woman was prescribed 2 weeks of doxycycline but after one week was admitted to the hospital for alcohol intoxication. “Upon questioning, she endorsed some improvement in vision after initiation of antibiotic,” writes Jha.

But the final outcome is uncertain, since the woman left the hospital against medical advice and did not

adhere to her follow-up appointments. “Whether her symptoms resolved completely thereafter is unknown,” Jha states.

Growing list of eye problems in Lyme disease

The authors stress the need to include Lyme disease in differential diagnosis of optic neuritis. “More reporting of the cases is essential to draw enough attention from the clinicians and researchers to help devise evidence-based guidelines on the approach to diagnose and manage this condition.”

References:

1. Sathiamoorthi, S. and W.M. Smith, The eye and tick-borne disease in the United States. *Curr Opin Ophthalmol*, 2016. 27(6): p. 530-537.
2. Jha P, Rodrigues Pereira SG, Thakur A, Jhaj G, Bhandari S. A Case of Optic Neuritis Secondary to Lyme Disease. *Wmj*. 2018;117(2):83-87.

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