

Child with Lyme disease presenting as pseudotumor cerebri

Friday, November 10, 2017

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Individuals with pseudotumor cerebri have an increased intracranial pressure (pressure around the brain) without a tumor or other cause. The symptoms can include stroke-like headaches, nausea and vomiting. The disease can progress to swelling of the optic disc of the eye and vision loss. [2]

“A 6-year-old female presented with a 4-day history of bi-frontal, throbbing headaches, nausea and vomiting,” writes Ahmad from the Department of Pediatric Neurology at the State University of New York in Buffalo. “Examination revealed bilateral papilloedema with normal visual acuity.” There were no other neurologic findings.

The laboratory evidence supported the diagnosis. The girl was positive for enzyme-linked immunosorbent assay for polyvalent antibodies to *Borrelia burgdorferi* and had a positive immunoglobulin M Western blot, explains Ahmad. The spinal tap was negative for Lyme disease by PCR but had an elevated opening pressure.

“Pseudotumor cerebri is an uncommon condition in pediatric practices,” writes Ahmad. Nevertheless, the authors advised that pseudotumor cerebri be considered as an initial manifestation of Lyme disease. “It should therefore be considered as differential diagnoses in Lyme endemic areas, or in those travelling from Lyme endemic areas.”

The authors did not describe the treatment options in their letter to the editor. However, Thurtell from the Department of Ophthalmology and Visual Sciences at the University of Iowa explains, “Acetazolamide is the mainstay of treatment, but other medications, such as topiramate and furosemide, can be considered when acetazolamide is poorly tolerated or insufficient when given as monotherapy.” Furthermore, he adds, “The two commonly used surgical treatments are CSF diversion (e.g., ventriculo-peritoneal and lumbo-peritoneal shunting) and optic nerve sheath fenestration (ONSF).” [2] A spinal tap is rarely helpful.

The evidence of Lyme disease in a patient presenting with pseudotumor cerebri opens up an additional treatment option. Further study would be appreciated.

References:

1. Din, F., et al., Lyme in the coconut: Paediatric neuroborreliosis. *J Paediatr Child Health*, 2016. 52(11): p. 1042.
2. Thurtell, M.J. and M. Wall, Idiopathic intracranial hypertension (pseudotumor cerebri):

recognition, treatment, and ongoing management. *Curr Treat Options Neurol*, 2013. 15(1): p. 1-12.

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