

Growing list of eye problems in Lyme disease

Thursday, February 25, 2021

<https://danielcameronmd.com/growing-list-eye-problems-lyme-disease/>

(Updated: February 24, 2021)

The authors described patients with tick-transmitted diseases presenting with the following ophthalmologic findings:

1. Follicular conjunctivitis
2. Periorbital edema and mild photophobia
3. Bell's palsy, cranial nerve palsies and Horner syndrome
4. Argyll Robertson pupil
5. Keratitis
6. Optic neuritis, papilledema, papillitis and neuroretinitis
7. Myositis of extraocular muscles and dacryoadenitis
8. Episcleritis, anterior and posterior scleritis
9. Anterior, intermediate, posterior and panuveitis
10. Retinal vasculitis, cotton wool spots and choroiditis
11. Retinitis, macular edema and endophthalmitis

The authors point out that optic neuritis, which is often seen in multiple sclerosis, occurs in Lyme disease, as well. Furthermore, they remind readers that although it is rare, uveitis can also be found in Lyme disease (LD). "Findings include vitreitis, retinal vasculitis, cotton wool spots, choroiditis, macular edema and endophthalmitis," [stated Sathiamoorthi](#). "In several cases, spirochetes were detected in vitreous material."

Uveitis is inflammation of the uvea, which is made up of the iris, ciliary body and choroid. Anterior, intermediate and posterior uveitis as well as panuveitis has also been described. [2]

The "degree and frequency of ocular signs and symptoms varies widely between the different [tick-borne] diseases," the authors point out.

These eye problems have been associated with a wide range of acute and chronic presentations. "Patients with anterior uveitis usually complain of pain, redness, blurred vision, and photophobia, watering," according to Agrawal from the Medical Research Foundation, India. [3] "Most of the patients would have had repeated attacks and would have sought consultation with multiple ophthalmologists and would have used topical and/or systemic medications on and off."

Ocular complications are infrequent but can be serious. "Complications such as macular edema,

chorioretinitis and optic neuropathy may be vision-threatening and require treatment with corticosteroids as long as the recommended antimicrobial regimen has been instituted," stated Sathiamoorthi.

The true incidence of ocular findings, however, remains unknown. According to Sathiamoorthi, one case of seronegative uveitis was discredited. "At least one of the earlier case reports of Lyme uveitis found spirochetes in vitreous material, yet serological testing was negative for Lyme antibodies."

The authors conclude the "degree and frequency of ocular signs and symptoms varies widely between the different [tick-borne] diseases." Furthermore, ophthalmologists should be "alert to the possibility of an infectious cause depending on the patient's risk factors."

Related Articles:

[Erratic rapid eye jerks in a child with Lyme disease](#)

[Lyme disease causes double vision](#)

[Lyme disease causes vision loss in 46-year-old woman](#)

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. Sudharshan, S., S.K. Ganesh, and J. Biswas, *Current approach in the diagnosis and management of posterior uveitis*. Indian J Ophthalmol, 2010. **58**(1): p. 29-43.
3. Agrawal, R.V., et al., *Current approach in diagnosis and management of anterior uveitis*. Indian J Ophthalmol, 2010. **58**(1): p. 11-9.

Latest From the Lyme Disease Science Blog

Growing list of eye problems in Lyme disease - <https://danielcameronmd.com/growing-list-eye-problems-lyme-disease/>