

Could *Borrelia miyamotoi* infections explain persistent symptoms in Lyme disease patients?

Sunday, December 20, 2020

<https://danielcameronmd.com/borrelia-miyamotoi-persistent-symptoms-lyme-disease/>

Borrelia miyamotoi (BM) is another tick-borne pathogen and “unlike Lyme disease, erythema migrans rash, and arthralgias are uncommon,” [the authors write in the journal *Frontiers in Medicine*](#). The infection is diagnosed with polymerase chain reaction (PCR) called glycerophosphodiester phosphodiesterase (GlpQ) enzyme immunoassay.

Investigators looked at the incidence of BM in 82 patients who were seeking a second opinion regarding persistent symptoms which included fatigue, pain, neurocognitive, and psychiatric problems.

In their study, 1 out of 4 Lyme disease patients tested positive for *Borrelia miyamotoi*, using a GlpQ test. The BM positive group were significantly more likely to suffer from sleepiness (according to the Epworth Sleepiness Scale) and from pain, as measured by the McGill VAS Pain Scale, and Zung Anxiety Scale.

Eight patients with Lyme disease and *Borrelia miyamotoi* were hospitalized. “Eight of 21 (38%) reported hospitalization (seven medical and one psychiatric) since symptom onset, three for cardiac and two for neurologic abnormalities,” according to the authors.

All of the patients, except for one, with Lyme disease (LD) and *Borrelia miyamotoi* were treated with antibiotics. “All 21 received prior antibiotic treatment, of whom 20 received at least 2 weeks of doxycycline or amoxicillin.”

Five of the 21 patients with LD and BM lived outside of the with Northeast/Mid-Atlantic states. “Two lived in California, two lived in Florida, and one lived in Illinois.”

Study insight into *Borrelia miyamotoi* and Lyme disease

The study found that clinicians are not testing for *Borrelia miyamotoi*, as only 1 out of the 82 study participants were tested for the infection.

Furthermore, clinicians were often dismissive of a tick-borne illness. “Many patients reported that their clinicians dismissed the possibility of tick-borne illness both at the onset and during the course of their illness and attributed symptoms to psychological stress,” writes Delaney.

The authors raise a public health concern: “In Lyme disease, delayed diagnosis and treatment is associated with prolonged symptoms. The same may prove true for *B. miyamotoi* disease.”

Editor’s note: A co-infection with *Borrelia miyamotoi* may explain why some Lyme disease patients are sicker than others. Unfortunately, there are still problems with the reliability of testing for *Borrelia*

miyamotoi. There is also uncertainty over the best treatment approach for the infection.

Related Articles:

[The best antibiotics to treat Borrelia miyamotoi?](#)

[Doctors face challenges in diagnosing Borrelia miyamotoi](#)

[Don't count on a relapsing fever to diagnose Borrelia miyamotoi](#)

References:

1. Delaney SL, Murray LA, Aasen CE, Bennett CE, Brown E, Fallon BA. Borrelia miyamotoi Serology in a Clinical Population With Persistent Symptoms and Suspected Tick-Borne Illness. Front Med (Lausanne). 2020;7:567350.

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