

NATURAL AND ALTERNATIVE MEDICINE: LYME DISEASE : The Diagnosis and Treatment

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Lyme disease is an infectious illness commonly caused by a tick bite infected with the spiral-shaped bacterium called *Borrelia burgdorferi*. Of special interest, the disease is named after the towns of Lyme and Old Lyme, Connecticut. There are different phases of infection in Lyme disease: early localized phase, early disseminated phase, and chronic phase. The earlier the infection can be identified, the greater the success in treatment.

Early Localized Lyme

The classic sign of early local infection with Lyme disease is a circular, outwardly expanding rash called erythema migrans, or EM rash, which may occur at the site of the tick bite three to 30 days after the bite. The textbook presentation of the EM rash commonly appears as a bull's eye, hence its nickname "bull's eye rash." Unfortunately, the EM rash is absent in more than 50% of Lyme disease cases, which is one reason an acute Lyme infection may be missed by many physicians. The physician should consider Lyme when a patient presents with flu-like illness, fever, malaise, muscle soreness, and headache after camping, hiking, or gardening.

Early Disseminated Lyme

In early disseminated Lyme, the bacteria will spread through the bloodstream, contributing to muscle, joint, and tendon pain. Dizziness and headaches, heart palpitations, severe fatigue, and mood changes are common.

Chronic Lyme Disease

Chronic Lyme disease presents a challenge to the astute clinician because the Infectious Diseases Society of America (IDSA) denies its very existence, while the International Lyme and Associated Diseases Society (ILADS) believes the Lyme infection exists past 30 days, causing ongoing symptoms and disability.

Joseph Burrascano, MD, a physician at the forefront of Lyme disease treatment and research in the United States, and author of "Advanced Topics in Lyme Disease: Diagnostic Hints and Treatment Guidelines for Lyme and Other Tick Borne Illness," offers the following definition:

For a diagnosis of chronic Lyme disease, these three criteria must be present:

- 1. *Illness present for at least one year.***
- 2. *Persistent major neurologic involvement (such as encephalitis/encephalopathy, meningitis, etc.) or active arthritic manifestations (active synovitis).***

3. Active infection with *Borrelia burgdorferi* (Bb), regardless of prior antibiotic therapy (if any).

ILADS, the US-based organization that recognizes chronic Lyme disease, has adopted a set of treatment guidelines that have been widely used in clinical practice (available at www.ilads.org). They state the following:

“Chronic Lyme disease is inclusive of persistent symptomatology including fatigue; cognitive dysfunction; headaches; sleep disturbance; and other neurologic features such as demyelinating disease, peripheral neuropathy and sometimes motor neuron disease; neuropsychiatric presentations; cardiac presentations including electrical conduction delays and dilated cardiomyopathy; and musculoskeletal problems.”

Lyme Disease: The Great Imitator

Lyme disease is known as the “Great Imitator.” Its list of symptoms is long and varied.

Following is a list of illnesses that Lyme disease can mimic:

- . *Amyotrophic lateral sclerosis (ALS)*
- . *Attention deficit disorder*
- . *Autism*
- . *Chronic fatigue syndrome*
- . *Crohn’s disease*
- . *Encephalitis*
- . *Fibromyalgia*
- . *Interstitial cystitis*
- . *Irritable bowel syndrome*
- . *Juvenile arthritis*
- . *Lupus*
- . *Meningitis*
- . *Motor neuron disease*
- . *Multiple sclerosis*
- . *Obsessive-compulsive disorder*
- . *Parkinson’s disease*
- . *Psychiatric disorders (depression, bipolar, OCD, etc.)*
- . *Raynaud’s syndrome*
- . *Rheumatoid arthritis*
- . *Scleroderma*
- . *Sjögren’s syndrome*
- . *Thyroid disorders*

And that is just a sampling.

Diagnosis

I recommend starting with the following tests:

CD57 Panel (cellular stress) (HNK-1) (LabCorp: 505026) and Complement C4a (complement stress) (LabCorp: 004330)

The CD57 is not so much a test to detect Lyme disease as it is an **immune marker** that tends to be **low** in the presence of Lyme disease. The sicker the patient, the lower the CD57 count appears to be.

Measuring the CD57 count can be helpful for a number of reasons. First, other illnesses such as chronic fatigue syndrome, rheumatoid arthritis, or multiple sclerosis might mimic Lyme, but those illnesses will not cause a drop in the CD57, so this marker can help determine Lyme disease as distinct from other chronic illnesses with similar symptom pictures. In addition, the CD57 can be used to track treatment progress because it should return toward normal levels as the infection improves.

Western Blot Test

The Western Blot test is one of the foremost tests used in the evaluation of Lyme disease. It is also an indirect test, as are the ELISA and IFA.

A Western Blot reports certain numbers, or “bands,” which can be positive, negative, or indeterminate. The bands represent certain antigens, which are the parts of the bacteria that evoke a reaction from the immune system.

There is a discrepancy as to which bands are clinically significant, and how many of the bands need to be positive to get a positive result. FDA-approved, commercially available kits are restricted from reporting all of the bands. These rules were set up in accordance with the Centers for Disease Control and Prevention’s (CDC) surveillance criteria. Private laboratories that are not held to these rules and criteria are free to produce tests that actually help people get an accurate assessment.

One of the private laboratories I recommend is ArminLabs.

Treatment

Although there is no cookie-cutter, one-size-fits-all protocol for Lyme disease, there are accepted pharmaceutical and botanical treatments that have been found to be effective. As chiropractors, we are not licensed to prescribe medications, but it is still important to understand what are the now-accepted protocols passed down from the International Lyme and Associated Diseases Society (ILADS). For information on the accepted pharmaceutical protocols, visit the ILADS website at www.ilads.org.

The diagnosis and treatment of Lyme disease can be both challenging and rewarding. This disease is hitting epidemic proportions and more healthcare professionals should become knowledgeable in diagnosing and treating this debilitating condition.

Dr. Badanek has been and currently is 38 years into active/private practice in the Ocala/Marion County, Florida region. Dr. Badanek practices Natural/Holistic Medicine through the use of Functional/Integrative Models for diagnostic and treatment protocols for the health challenged. Find him online at Dr.Badanek.com and www.alternativewholistic.com, and see what the facility has to offer the sick and health challenged. To schedule an appointment call 352-622-1151