

Coinfection Screen: Sorting out Lyme and Associated Coinfections¹

(Check if yes)

Classic Lyme (Bb infection)

Gradual onset of initial (viral-like) symptoms—this often makes it difficult to pinpoint when the infection began. Also, as in the case with Bb infection, laboratory tests for them are often insensitive. Thus, there is a need to sort it all out clinically to provide guidance in testing and treatment. Here are some clues:

1. ___ Multisystem—almost always, in disseminated stages, involves more than one part or system (i.e., joint pain plus cognitive dysfunction).
2. ___ Migratory—first a knee will hurt, then over time this may lessen, and the elbow or shoulder acts up, and later the joints calm down, but headaches worsen.
3. ___ Stiff joints and loud joint crepitus, especially the neck (“Lyme shrug”).
4. ___ Headaches are often nuchal and associated with stiff, painful, and crepitant neck.
5. ___ Afternoon fevers, often unnoticed—most Lyme patients have subnormal temperatures in the morning but rise to 99+ by early to mid-afternoon. No obvious sweats.
6. ___ Tiredness and limited stamina—often is a strong need to rest or even nap in the afternoon, especially when the flushed face and elevated temperature appears.
7. ___ Four-week cycles—Bb activity, and thus symptoms, wax and wane in a cycle that repeats roughly every four weeks. This cycle, if clear, can guide your treatments.
8. ___ Slow response to treatment, with an initial symptom flare in most (“Herxheimer-like reaction”), then improvement over weeks, punctuated by the monthly symptom flares. Likewise, if treatment is ended too soon, an initial period of well-being will gradually be replaced by a return of symptoms over a few weeks.
9. ___ EM rash in 25% to 50% of patients.

Bartonella and “Bartonella-Like Organisms”

1. ___ Gradual onset of initial illness.
2. ___ Central nervous system symptoms are out of proportion to the musculoskeletal ones and can include muscle twitches, tremors, insomnia, seizures, agitation, anxiety, severe mood swings, outbursts, and antisocial behavior.
3. ___ Gastrointestinal involvement may present as gastritis or abdominal pain (mesenteric adenitis).
4. ___ Sore soles, especially in the morning.
5. ___ Tender subcutaneous nodules along the extremities, especially outer thigh, shins, and occasionally along the triceps.
6. ___ Occasional lymphadenopathy.
7. ___ Morning fevers, usually around 99; occasionally light sweats are noted.
8. ___ Elevated vascular endothelial growth factor (VEGF) occurs in a minority, but the degree of elevation correlates with activity of the infection and may be used to monitor treatment.
9. ___ Rapid response to treatment changes—often symptoms improve within days after antibiotics are begun, but relapses occur also within days if medication is withdrawn early.
10. ___ May have papular or linear red rashes (like stretch marks that do not always follow skin planes), especially in those with GI involvement.

Babesia Species

1. ___ Rapid onset of initial illness, often with sudden onset of high fever, severe headaches, sweats, and fatigue; thus, it is easy to know when infection began.
2. ___ Obvious sweats, usually at night, but can be day sweats as well.

3. ____ Air hunger, the need to sigh and take a deep breath; dry cough without apparent reason.
4. ____ Headaches can be severe–dull, global (involves the whole head, described like the head is in a vise).
5. ____ Fatigue is prominent, does not clear with rest, and is made worse with exercise.
6. ____ Mental dullness and slowing of reactions and responses.
7. ____ Dizziness–more like a tippy feeling, and not vertigo or purely orthostasis.
8. ____ Symptoms cycle rapidly, with flares every four to six days.
9. ____ Hypercoagulation is often associated with Babesia infections.
10. ____ Rarely, splenomegaly.
11. ____ Very severe Lyme disease can be a clue to Babesia infection, as it will make Lyme symptoms worse and Lyme treatments less effective.

Ehrlichia/Anaplasma

1. ____ Rapid onset of initial illness with fever, headache, prostration.
2. ____ Headaches are sharp, knife-like, and often behind the eyes.
3. ____ Muscle pain, not joint pain, and can be mild or severe.
4. ____ Low WBC, low platelet count, elevated liver enzymes, and (rarely) inclusions seen in the WBCs.
5. ____ Rarely see diffuse vasculitic rash, including palms and soles (less than 10%).
6. ____ Rapid response to treatment.

DNA Viruses (HHV-6, EBV, CMV)

1. ____ Persistent fatigue made worse with exercise.
2. ____ Sore throat, lymphadenopathy, and other viral-like complaints.
3. ____ May see elevated liver enzymes and low WBCs.

Mycoplasma

1. ____ Gradual onset.
2. ____ May be light night sweats.
3. ____ Symptoms are made worse with exercise.
4. ____ Major fatigue and neurological dysfunction, especially autonomic neuropathies.
5. ____ Metabolic disturbances, immune damage, very low CD57 count (less than 20).
6. ____ Found in the sickest and most poorly responding Lyme patients (CFIDS-like).

¹ Burrascano JJ. The Burrascano Checklist of Current Symptoms. Available online: <http://www.lymenet.org/BurrGuide200810.pdf> (accessed on 9 November 2019).