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Tick borne illness-Lyme disease.

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Abstract

Lyme disease is the most commonly reported tick-borne illness in the United States. The causative spirochete, *Borrelia burgdorferi* is transmitted by 4 species of Ixodes tick species. Over 90% of US cases occur in northeastern states from Maine to Virginia, and in Wisconsin, Minnesota, and Michigan. Infection also takes place in northern California and Oregon. Lyme borreliosis is also diagnosed in parts of Europe, China, and Japan. The white-footed mouse is the primary animal reservoir for *B. burgdorferi* in the U.S. and the preferred host for nymphal and larval forms of the deer tick. Deer are hosts for the adult ticks but do not carry the spirochete. Signs and symptoms of infection occur in 3 stages; early localized, typified by erythema migrans; early disseminated with a flu-like syndrome, neurologic, and cardiac manifestations; and late, characteristically with arthritis. Although, the term 'Chronic Lyme Disease' has been assigned to many patients with a variety of unexplained symptoms, experts in the field question the validity of this diagnosis and warn against prolonged unproven antimicrobial therapies. Diagnosis relies upon clinical evaluation and is supported by serologic testing using a 2-step process which requires careful interpretation. Treatment varies with stage of disease, but normally includes doxycycline, amoxicillin, and ceftriaxone. Currently, no preventative vaccine is available. In some geographic areas, patients may be confused with Babesia, Ehrlichia, and Anaplasma since the same Ixodes ticks transmit these pathogens.

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KEYWORDS:

Borrelia; Ixodes ticks; Lyme disease; anaplasmosis; babesiosis; carditis; chronic Lyme disease; chronic arthritis; deer ticks; ehrlichiosis; erythema migrans

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