

ID/CC	A 12-year-old male presents with fatigue, fever, headache, fleeting joint pain, and a reddish rash on his trunk and left leg of 1 week's duration.
HPI	The patient is a native of Connecticut and attended a summer camp in the state's national park 2 weeks ago. He recalls having noticed a tick bite on his leg about 2 weeks ago.
PE	VS: fever. PE: red macule on site of bite that has grown circumferentially; active border and central clearing (ERYTHEMA CHRONICUM MIGRANS); femoral lymphadenopathy; mild neck stiffness; normal CNS exam.
Labs	Positive IgM ELISA for <i>Borrelia burgdorferi</i> ; diagnosis confirmed by Western blot assay. ECG: normal. LP: lymphocytic pleocytosis; increased proteins. <i>B. burgdorferi</i> grown on Noguchi medium.
Gross Pathology	Erythema chronicum migrans (ECM) is characteristic of Lyme disease; must be minimum of 5 cm in diameter for diagnosis to be made; center may desquamate, ulcerate, or necrose; satellite lesions sometimes seen; may spontaneously disappear with time.
Treatment	Doxycycline; amoxicillin; ceftriaxone.
Discussion	The most common disease transmitted by vectors in the United States, Lyme disease is caused by <i>Borrelia burgdorferi</i> , a spirochete, and is transmitted through <i>Ixodes</i> species tick bites. Ticks acquire <i>B. burgdorferi</i> from deer mice, which are the natural reservoir. There are three recognized stages: stage 1 consists of ECM and constitutional symptoms; stage 2, cardiac or neurologic involvement; and stage 3, persistent migratory arthritis, synovitis, and atrophic patches on the distal extremities (ACRODERMATITIS CHRONICUM ATROPHICANS).