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Images

A case of diagnosis of Lyme disease in the absence of a tick bite

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A 6-year-old girl was presented with a rash on the left side of her face (Fig. 1a). Her primary care pediatrician assumed this to be allergic dermatitis and treated it with topical steroids, but there was no improvement. Over the next 1.5 months, the rash spread to the back of the head (Fig. 1b). The patient also had systemic manifestations, including low-grade fever (up to 37.7 °C) and malaise. Because the patient lived in an endemic area, the rash was deemed

Figure 1 Circular rash on the left side of the face (**a**) spreading to the occipital area (**b**) consistent with erythema migrans and complete resolution of the rash (**c**) after antibiotic therapy.

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suspicious for erythema migrans associated with Lyme disease. There was no joint involvement or neurological deficits. Despite careful history-taking, the patient showed no history of a tick bite. Enzyme-linked immunosorbent assay also did not demonstrate detectable Ig G/Ig M anti-Borrelia burgdorferi sensu lato antibodies. The patient was started on antibiotic therapy with cefuroxime according to current guidelines,[1] which resulted in complete resolution of the rash (Fig. 1c) and normalization of body temperature. Repeat Lyme two-tiered serologies (enzyme immunoassay, followed by Western blotting) performed 2 weeks after the initiation of antibiotic therapy (i.e., 2 months after the onset of symptoms) showed positive results for Ig G, thus confirming the diagnosis of Lyme borreliosis. The girl remained asymptomatic even after a 1.5-year follow-up.

This case demonstrates that erythema migrans may precede the development of detectable antibodies; therefore, patients with erythema migrans who live in endemic areas for Lyme disease can be diagnosed without laboratory testing.[2] It also reminds that recall of a tick bite is not necessary to make a diagnosis of Lyme disease.[3]

Conflicts of interest

None declared.

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