LETTERS TO THE EDITOR

Lyme Disease Acquired Outside of Japan

To the editor: Lyme disease, a tick-borne infection with spirochete Borrelia burgdorferi (B. b.), typically begins with a characteristic skin lesion, erythema migrans (EM), and is often followed by neurologic, cardiac, or joint abnormalities (1). Distribution of Lyme disease is now worldwide. In Japan, some cases of EM have been diagnosed serologically as Lyme disease since 1987 (2). We recently showed that B. b. infection might be the cause of neurologic disorders in Japan (3). However, the incidence and clinical spectrum in Japan have not been fully clarified. Physicians in Japan are not familiar with this newly recognized infectious disease. We describe here a case of Lyme disease, who was infected during travel in the United States. Lyme disease is the potential disease to which the travellers for foreign countries might be exposed.

A 26-year-old Japanese female was referred to our hospital on August 2, 1991, because of recurrent joint pain. On June 11, 1991, while in New York city, she noted expanding erythema with a mark of a bite in the left submental region, associated with swelling of local lymph nodes. She could not recall any history of tick bite. A few days later, she noticed pain in her right elbow, and underwent a medical examination. Her skin lesion was diagnosed as EM. Serum antibodies to B. b., as determined by enzyme immunoassay, were positive. Treatment with oral tetracycline, 500 mg daily, resolved her symptoms. Two weeks later, she discontinued the use of antibiotics against the physician's advice. After she returned to Japan in July, she developed migratory joint pain in her right knee and left hand. Physical examination showed pigmentary change in the skin at the site of EM. The joint pain in the extremities was more evident on motion. Neurologic examination revealed hypesthesia of the left forearm. However, laboratory studies, including cerebrospinal fluid analysis, electromyography and peripheral nerve conduction studies, gave normal results. She responded well to treatment with intravenous ceftriaxone (2 g daily for 21 days), one of the recommended regimens for patients with Lyme arthritis (4).

Lyme disease has been recognized broadly in the United States, and is also found in most European countries, the Soviet Union, China and Australia (1). Annually, many people travel from Japan to these areas. No vaccine is yet available, and consequently, personal protection from the tick bite is the single most effective measure in avoiding Lyme disease. However, since most patients who develop Lyme disease are unaware of a tick bite, information about the early symptoms of Lyme disease should be given to travellers. Moreover, it is important to emphasize that the symptoms of Lyme disease may manifest months or years after the period of travel, and treatment with appropriate antibiotics is necessary.

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