A Painful Inflammatory Lesion on the Dorsum of the Hand of a Patient With Rheumatoid Arthritis Treated With Methotrexate

(See page 866 for the Photo Quiz.)

Figure 1. Painful inflammatory lesion on the dorsum of hand.

Diagnosis: Acrodermatitis chronica atrophicans (ACA).

The patient’s history did not indicate the presence of tick bites, but she lived in an area endemic for tick-borne diseases. Skin biopsy revealed a discrete epidermal atrophy with a dense perivascular lymphocytic infiltrate rich in plasma cells in the dermis. Enzyme-linked immunosorbent assays (ELISAs) composed of antigens belonging to 3 genospecies (Borrelia burgdorferi sensu stricto, Borrelia afzelii, and Borrelia garinii) showed positive titers of B. burgdorferi antibodies (immunoglobulin G [IgG] 17 Biomedica Borrelia units/mL). ELISA results were confirmed by Western blotting (IgG and immunoglobulin M [IgM] positive against borreial antigens VlsE-Mix, IgG anti-p58, and -p83 were detected). Borrelia burgdorferi—specific DNA was amplified from the biopsy material using polymerase chain reaction (ARN S23). The patient was treated with ceftriaxone (2 g intravenously for 21 days). The skin lesion partly faded away after treatment, and methotrexate was reintroduced for rheumatoid arthritis. No recurrence was observed after 3 months of follow-up.

First described by Buchwald in 1883, ACA is a late cutaneous manifestation of Lyme disease occurring months to years after inoculation. Lesions occur particularly in the acral skin due to cooler temperatures. It usually appears on the distal part of one extremity, predominantly on the extensor surfaces and especially on bony prominences. It occurs primarily in the elderly due to persistent borreial infection. Fibrotic nodules localized linearly in the vicinity of joints and lymphadenopathy may also be present. The most frequent extracutaneous manifestation of ACA is peripheral neuropathy. Acrodermatitis chronica atrophicans does not heal spontaneously; gradual conversion into its atrophic phase may occur during many years after the infection [1–3].

Two risk factors may be suspected in our observation to explain this late manifestation of Lyme disease. Although we did not find any similar observation of ACA in immunosuppressed patients or after axillary surgery, we cannot exclude that long-term methotrexate treatment and the history of axillary lymph node dissection may have induced this late local dissemination.

Note

Potential conflicts of interest. All authors: No reported conflicts. All authors have submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Conflicts that the editors consider relevant to the content of the manuscript have been disclosed.

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