Atypical Erythema Multiforme Occurring at the Early Phase of Lyme Disease?

Sir,

Erythema multiforme (EM) is a syndrome which is characterized clinically by target lesions (1) often related to various infectious (2,3). We report a case of EM-like lesions occurring at the beginning of Lyme disease.

CASE REPORT

A 42-year-old man was referred for a febrile (38.2°C) eruption. Lesions consisted of maculopapules, with a vesiculous centre, sometimes slightly infiltrated. They were symmetrically distributed on the lower and upper limbs and featured an atypical target appearance on the palms (Fig. 1). The trunk and mucous membranes were unaffected. Histological examination of a palmar lesion showed marked dermal oedema and lymphohistiocytic infiltration around small dermal vessels.

The general examination was normal. There was no history of recurrent herpes infection and no drug intake in the previous 4 weeks. However, the patient reported a probable tick bite on the right ankle 2 weeks before admission, which was followed 4 days later by a round and rapidly extensive erythematous plaque, 15 cm in diameter, which disappeared spontaneously within 8 days.

Routine blood tests were unremarkable. Serological tests were negative for *Herpes simplex* virus, *Mycoplasma*, *Chlamydia*, *Rickettsia conori*, *Coxiella burneti*, *Treponema* and *Leptospira*. The *Borrelia burgdorferi* titre was elevated with 3 methods: 1/25,600 with haemagglutination test (normal < 1/200), 1/512 (normal < 1/256) with indirect immunofluorescence test and 0.582 (normal < 0.160) with an immunoenzymatic test.

The patient was treated with 3 g/day amoxycillin for 3 weeks and the skin lesions disappeared within 10 days. Another *Borrelia* serology test remained positive at the end of treatment (1/128,000 with haemagglutination test, 0.43 with immunoenzymatic test).

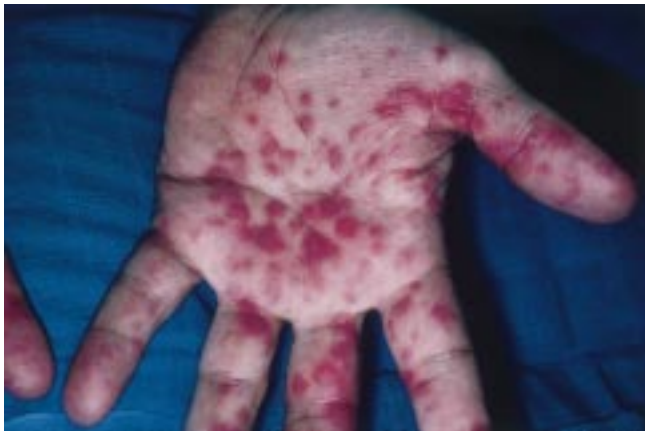

Fig. 1. Atypical erythema multiforme on the palms.

DISCUSSION

The diagnosis of Lyme disease was established by initial cutaneous lesions consistent with erythema chronicum migrans (ECM) preceded by a probable tick bite and by the positive serology (4).

This is the third reported case of EM related to *Borrelia burgdorferi* infection. In the 2 previously reported cases (5), EM also appeared at the early phase of Lyme disease, and at the same time as the occurrence of ECM, as in our case. However, the cutaneous lesions were not typical of EM; they were described in one patient as large annular or oval plaques without 3 concentric zones, and in the other patient as persistent erythema. In our case, also, the cutaneous lesions did not displayed typical target-like aspects and were thus consistent with atypical EM (1).

In conclusion, *Borrelia burgdorferi* is a newly-described cause of EM-like lesions (5). Because the cutaneous lesions are not those of typical EM, they could also correspond to early disseminated lesions of Lyme disease.

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Accepted January 19, 2000.

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