Lupus Erythematosus as an Occupational Disease

Sir,

The isomorphic or Koebner's phenomenon is unusual in discoid lupus erythematosus (DLE). We describe a patient with minor DLE in the face, who developed severe DLE lesions on the hands. These were induced and aggravated by manual work and caused considerable disability. Even minor tasks at home became impossible.

CASE REPORT

A 57-year-old male presented with progressive complaints of pain and a burning sensation in his hands since several months. Erythematous bluish indurated areas, sometimes slightly scaling, were present on the palms and volar aspects of the fingers and on the knuckles of the metacarpophalangeal joints and proximal interphalangeal joints. His left cheek, forehead and eyebrows showed lenticular pink red plaques.

Immunofluorescence examination of a skin biopsy of the hand showed granular depositions of IgM and C3c and to less extent of Clq along the basement membrane of the vessels. A skin biopsy of the forehead showed an atrophic epidermis with focal degeneration of the basal keratinocytes. In the dermis an inflammatory infiltrate was present, which was perivascular and perifollicular. Both immunofluorescence and histopathology were consistent with the diagnosis of lupus erythematosus (LE). Antinuclear factors and Scl 70 were negative. Patch tests with the European standard series and an additional series were positive (+ +) for nickel sulfate after 72 h.

Our patient worked with an aircraft company in the maintenance of airplane seats. His task was to tear off old seat-coverings, which requires moderate force.

After a 2-month period of sick leave his complaints gradually subsided and only a violaceous hue on the hands remained visible. The lesions in the face but not the hands showed a good response to clobetasol cream. At home he did not perform any tasks requiring the use of his hands. Even changing lightbulbs induced aggravation of his complaint. On the tips of his thumb and second finger of the right hand some pain remained, which he attributed to the daily winding of his watch. Some months later he performed some minor reparations in his home, and promptly extensive plaques developed on his palms and fingers. This necessitated therapy with hydroxychloroquine, to which he responded well. However, mechanical pressure invariably induced the recurrence of the lesions.

DISCUSSION

Irritants, burnings, herpes zoster, mechanical trauma, vaccination and allergic contact dermatitis can induce DLE (1–4). The interval between the incident and the onset of DLE varied from immediately to several years. A causal relationship between trauma and DLE development was assumed but not formally proven in these cases.

In our patient, with previous cutaneous LE in the face, repetitive mechanical exposure most probably induced the LE lesions of the hands. During a period of sick leave of 2 months an almost complete cure was achieved, except for the fingers he used to wind his watch. He reported prompt pain and itch following minimal use of his hands. After resuming his work the DLE plaques in the palms gradually appeared again, preventing him from continuing his job. DLE is normally not considered to be an occupational disease, but in this case work conditions elicited or at least aggravated LE.

To some extent our case resembles a recently described patient with lichen planus/LE overlap syndrome, who developed lichen planus on the palms possibly because of a Koebner phenomenon (5). Lesions on the palms and soles occur in 6% of patients with DLE (6). It remains unclear why the Koebner phenomenon develops only in a small proportion of patients.

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