Lichen Sclerosus et Atrophicus Appearing in Old Scars of Burns from Welding Sparks

Sir,

Lichen sclerosus et atrophicus (LSA) is an inflammatory dermatosis of unknown cause. Although it has been reported in a variety of post-traumatic clinical cases (1–6), we believe this to be the first report of its having developed in old scars from welding sparks.

CASE REPORT

A 46-year-old man, otherwise healthy, who was a sheet-metal worker and had often done welding over a period of more than 20 years, was referred to the Dermatological Clinic in Lund with a 7-month history of white, firm plaques developing in many of his old scars left by welding sparks. Clinical examination revealed multiple porcelain-white, shiny, round, indurated lesions 5–10 mm in diameter on the front of his trunk. Some of these were surrounded by an erythematous halo and had a curious appearance (Fig. 1). Similar but less indurated lesions could be seen on his shoulders and the volar aspects of his lower arms. The man was certain that his recent skin lesions had developed on spots where he had been hit over the years by welding sparks, which had burned holes in his shirts and burned the skin below. On his trunk and arms there was also a number of small, slightly hypopigmented maculae, likewise representing old scars from welding sparks, which had not changed, however. General examination revealed a shiny, white discoloration and scarring on the glans and the shaft of his penis. He had been circumcised early in life. The genital skin lesions had been present for more than 10 years. The patient had thought that they represented a normal variant.

Borellia serology was negative. Further laboratory investigation showed thyroid function to be normal and a test for antinuclear antibodies to be negative.

Skin biopsies obtained from three of the changed lesions on his trunk and arms revealed hyperkeratosis, the epidermis to be thin and atrophic, and homogenization of the dermis, with loss of elastic fibres and the presence of small lymphocytic infiltrates. The histological picture was consistent with that of LSA. A skin biopsy from an unchanged scar showed scar tissue only.

DISCUSSION

There have been several reports of LSA occurring following trauma. It has been reported under tight clothing (1), at a vaccination site (2), in a surgical scar (3), on a skin area treated by radiotherapy (4), after severe sunburn (5) and in an old burn scar (6). Often, there has been a long delay between the trauma and appearance of the disease. In the case reported by Meffert & Grimwood (6), for example, the time elapsed between the burn and the appearance of LSA was nearly 50 years.

In our patient, the patches of LSA appeared in areas that had been hit by welding sparks, usually at a much earlier time, and where the “usual” hypopigmented soft burning scars had developed. We are unable to find any previous reports of LSA following this particular form of cutaneous injury, although other reports of LSA indicate that isomorphic phenomena may occur following trauma of other types.

REFERENCES


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Eva Tegner1 and Irena Vrana2
Departments of 1Dermatology and 2Pathology, University Hospital, SE-221 85 Lund, Sweden. E-mail: eva.tegner@derm.lu.se

Fig. 1. Lichen sclerosus et atrophicus in old scars of burns from welding sparks. An unchanged scar can be seen at the upper left (arrow).