Reverse Kőbner response in lichen striatus: the first case described in the literature

Aleksandra Dańczak-Pazdrowska\(^1\), Katarzyna Pawlaczyk-Gabriel\(^2\), Monika Bowszyc-Dmochowska\(^1\), Adriana Polańska\(^3\), Marcin Gabriel\(^4\), Zofia Gabriel\(^5\), Ryszard Żaba\(^3\), Zygmunt Adamski\(^1\)

\(^{1}\)Department of Dermatology, Poznan University of Medical Sciences, Poznan, Poland
\(^{2}\)Department of Hypertension, Angiology and Internal Diseases, Poznan University of Medical Sciences, Poznan, Poland
\(^{3}\)Department of Dermatology and Venereology, Poznan University of Medical Sciences, Poznan, Poland
\(^{4}\)Department of General and Vascular Surgery, Poznan University of Medical Sciences, Poznan, Poland
\(^{5}\)Students Scientific Organization, Poznan University of Medical Sciences, Poznan, Poland

Lichen striatus is an uncommon, acquired and self-limiting inflammatory dermatosis that presents as small papules, which follows the Blaschko lines. It is considered as a cutaneous mosaicism and the interplay between genetic and environmental factors is postulated. The occasional appearance of lesions after trauma has been reported [1, 2]. Contrary to that, we present a case of lichen striatus in an adult woman in whom eruption disappeared after trauma. We believe it is an example of a rarely reported reverse Kőbner response and the first case of this phenomenon in lichen striatus.

A 48-year-old Caucasian female presented with a 6-month history of linear papular eruption of her left lower extremity. The lesion appeared suddenly, initially on the thigh. Over a few weeks it had extended distally to involve the shank and the patient suffered from mild pruritus. On examination there was a linear lesion following Blaschko lines, extending from the proximal thigh to the distal shank which consisted of multiple, flat-topped, erythematous papules of a few millimeters in diameter with a scaly surface (Figure 1 A). The other areas of the skin as well as mucous membranes and nails were spared.

The biopsy of the lesional skin from the upper thigh was taken. Histopathology of a biopsy specimen revealed two papules: one composed of spongiotic epidermis with hydropic degeneration of the basal layer and lymphocytic exocytosis with a dense lymphocytic infiltrate in the papillary dermis containing a few melanophages (Figure 2), while the second papule composed of slightly thickened epidermis with interface changes, hyperkeratosis with fo-
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Spongiotic epidermis with hydropic degeneration of the basal layer and lymphocytic exocytosis with a dense lymphocytic infiltrate in the papillary dermis containing a few melanophages (H + E, magnification 200×)

In our case the lesion disappeared after repeated trauma. Contrary to Köbner phenomenon in which new eruptions typical of an existing dermatosis are observed at sites of injuries, such disappearance of the lesions after trauma is called reverse Köbner response [4]. For the first time it was described in psoriatic patients [5]. According to Eyre et al., as many as 67% of patients suffering from plaque psoriasis undergoing trauma presented resolution of skin lesions. Those patients in whom reverse Köbner response was observed had more stable disease and lower Psoriasis Area and Severity Index (PASI) than those with Köbner phenomenon [6]. Casuistic reports on reverse Köbner phenomenon in vitiligo [7, 8] and leukocytoclastic vasculitis were also published [9]. The skin biopsy provoked reverse Köbner response in an interstitial variant of granuloma annulare [10].

Conflict of interest

The authors declare no conflict of interest.

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