Allergic contact dermatitis caused by clindamycin mimicking 'retinoid flare'

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Topical clindamycin is active against most Gram-positive and anaerobic bacteria, and is widely used for the treatment of acne vulgaris (1). Clindamycin is regarded as a weak contact allergen; few cases of topical clindamycin sensitization have been described in the literature (2–4). We describe a case of allergic contact dermatitis (ACD) caused by clindamycin in a patient with papulo-pustular acne.

Case Report

A 24-year-old non-atopic woman presented with an eczematous and pustular eruption on her face (Fig. 1) associated with itching, burning, and stinging. She had noted worsening of the facial lesions a couple of months before, after she started to use Zindaclin® cream and Differin® 0.1% cream (adapalen) prescribed to treat papulo-pustular acne of moderate severity. One month after the resolution of the dermatitis, which was achieved by topical application of corticosteroids, patch tests with the SIDAPA (Italian Society of Allergological, Occupational and Environmental Dermatology) baseline series (Euromedical, Calolziocorte, LC, Italy) and all of the topical drugs used by the patient (tested 'as is') were performed. Patch tests were applied with Al Test® (Euromedical) on Scanpor® tape (Norgesplaster, Vennesla, Norway) on the back and left under occlusion for 2 days. Readings were performed on day (D) 2 and D4, according to ESCD guidelines (5), and showed positive reactions only to Zindaclin® cream (++). Subsequently, patch tests were performed with the ingredients of Zindaclin® cream kindly provided by the manufacturer, at the appropriate concentrations according to (6), and a positive (++) result was obtained for clindamycin 1% pet. A repeated open application test with clindamycin 1% pet. was performed on the volar aspect of the forearm (twice-daily 5×5-cm^2 applications for a maximum of 7 days), and showed a positive reaction after two applications. Ten healthy volunteers were patch tested with clindamycin 1% pet., with negative results.

Fig. 1. Eczematous and pustular eruption on the patient's face.

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Discussion

We report a case of ACD caused by topical clindamycin in a patient with acne vulgaris. A similar case was described for the first time in 1978 (2), and since then such cases have been occasionally reported in patients with acne (3) and other conditions (4). Despite the apparently low sensitizing potential of clindamycin, we suppose that the prolonged application of topical acne products containing this substance on irritated skin (retinoid dermatitis) may increase the risk of sensitization. Moreover, the skin of acne patients seems to be characterized by dermo-epidermal barrier damage (7), which could contribute to the development of ACD. Many patients keep applying topical acne products, attributing facial eczematous lesions to retinoid dermatitis, ignoring the possibility that it might be caused by ACD. Our experience highlights the importance of performing patch tests with the baseline series and, importantly, with topical products used by the patient in all acne patients with persistent 'skin flare reactions' at the application site.

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