

Steroid Acne Sparing an Area of Previous Irradiation

Sir,

The occurrence of acneiform eruptions due to systemic drug administration is a well-known phenomenon (1, 2). In this letter we report the case of a 53-year-old man who presented with a 2-month history of asymptomatic red papules located on the back and sparing an area of previous X-ray irradiation.

Past medical history revealed an adenocarcinoma of the right lung infiltrating the chest wall, diagnosed 5 months earlier by bronchoscopy. On account of the advanced stage of the tumour, the surgical excision of the mass was not indicated and radiotherapy was administered for 2 months; a total amount of 62 Gys was given. At the time of our observation the patient appeared in poor condition. He complained of asthenia, dyspnea, cough and chest pain. He had also lost 5 kg during the last 3 months. The patient had been given tetracosactide (ACTH-like) i.m. at a dosage of 1 mg/day (Synachten® depot, Ciba-Geigy) for 2 months in order to control hyperthermia that had been resistant to previous therapies. He had received no other drugs prior to the eruption.

Skin examination revealed the presence of numerous erythematous papulo-pustular lesions, ranging in diameter from 5 to 7 mm. The rash affected exclusively the back, and it had strikingly spared a rectangular area (12 × 15 cm) of normal-appearing skin on the right scapular region (Fig. 1). This area corresponded to the portal of previous irradiation.

A biopsy specimen of a papular lesion showed a distended follicular infundibulum with compact hyperkeratosis and parakeratosis. The infundibular wall was thinned and a slight spongiosis was present. A perifollicular infiltrate with many neutrophils and histiocytes was noticeable.

A skin biopsy specimen from the previously irradiated area showed slight epidermal atrophy and slight teleangiectasia in the upper dermis. The sebaceous glands showed no anomalies.

On the basis of the clinical and histopathologic picture, the diagnosis of ACTH-induced acneiform eruption was formulated.

Steroid and ACTH-induced eruptions, also known as steroid



Fig. 1. On the back numerous erythematous papules with some pustules are present. On the right scapular region a rectangular cutaneous area (12 × 15 cm), corresponding to the portal of previous irradiation, appears free of lesions.

acne, are determined by the stimulation of the follicular epithelium, which leads to the formation of microcomedones. Inflammation may eventually develop, resulting in the formation of papules and pustules. The exact pathogenesis, however, is still controversial (3), as some authors state that comedones in steroid acne are usually absent (4, 5), while others consider the development of comedo as a concluding event that occurs after a follicular rupture subsequent to the folliculitis (6).

To our knowledge, the occurrence of a drug rash sparing sites of previous irradiation has been described only once in the literature (7), and it consisted of an extensive maculo-papular eruption in a patient who had taken several medications. The failure of the drug rash to occur on irradiated skin was related to the effects of ionizing radiation on cutaneous blood vessels. This might have resulted in a reduced reactivity of blood vessel walls and a diminished vascular bed, with consequent reduced flow of the drug to the skin site (7). In our case the drug-eruption consisted of a steroid acne, which is, by definition, a follicular-based disorder. Its pathogenesis is obscure, and the role of the above-mentioned factors seems quite unlikely. A causative role of immunological changes must also be excluded, as steroid acne is not considered an immunologically mediated disorder (2), although irradiation has been reported to induce loss of Langerhans' cells and other immunological alterations in the skin (8).

The involvement of follicles suggests that failure of the drug rash to appear on the irradiated skin could depend on the loss of appendages secondary to chronic radiation dermatitis. However, the sebaceous glands in our case were normal and well represented. Therefore, a hypothetical functional impairment of sebaceous glands secondary to the irradiation cannot be excluded.

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Accepted April 24, 1994.

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