Case Letter

O'Brien's actinic granuloma: An uncommon skin disease

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Sir,

O'Brien's actinic granuloma (AG) is a rare skin disease thought to be an inflammatory response to extensive sun damage with subsequent degeneration of elastic fibres [1,2]. The annular plaques usually have raised erythematous borders (about 3–5 mm) and a slightly atrophic centre. Hypo-pigment centres are visible in areas exposed to the sun. The most common areas of occurrence include the face, chest, and arms [1,2]. Initially, skin-coloured or pinkish-red papules occur singly or in small groups. Then they merge into larger ring-shaped plaques. A single plaque may be 1–10 cm long and persist for a few months to even several years, followed by spontaneous remission, leaving mottled depigmentation or skin with a healthy appearance. It is worth mentioning that AG is more common in sunny countries and fair-skinned and sun-exposed populations [2].

We report the case of a 66-year-old female presented with multiple annular lesions on the back of the neck associated with prolonged sun exposure. Physical examination showed pink papules arranged into annular form with raised erythematous borders and a slightly atrophic centre on the back of the patient's neck (Figs. 1a and 1b).

AG was first described in 1975 by O'Brien. According to the description, AG was caused by a granulomatous reaction to solar damage, with histiocytes and multinucleated giant cells engulfing elastotic fibres within a background of solar elastosis. The resulting loss of elastic fibres would give the effect of an atrophic, hypopigmented centre of the lesion. Initially, AG was considered a variant of annular granulomatosis; however,

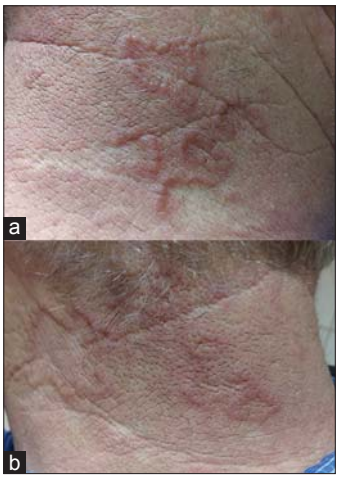

Figure 1: (a and b) Annular papules on the neck of patient occurring on a background of solar elastosis.

over time and after much debate, it was recognized as a separate entity closely related to photodamage, even though its pathogenesis is not fully clarified [3]. AG usually has a slow but self-limiting course, leaving mottled dyspigmentation or healthy-looking skin. Its remission may take up even to 10 years [3].

Annular granuloma should be considered in the differentiation. Its main difference from AG is the lack of elastic material in the middle layer of the dermis with clinical signs of the annulus. AG is characterized by giant cells with multiple nuclei. In annular granuloma, these cells are noticeably smaller and have fewer than three nuclei. Differences can also be found in clinical aspects. AG affects middle-aged and older adults, while annular granuloma usually occurs in the first three decades of life. AG is most often located on the face, neck and hands, while annular granuloma can

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usually be found in the thorax area. Another critical difference is that annular granuloma has no scarring effect. However, what connects these clinical entities and is a significant problem in the differential diagnosis is their macroscopic appearance: Both are oval, round, serpiginous areas with raised borders [4].

Treatments that include topical or systemic steroids, chloroquine, cyclosporine and laser therapy have been used with varying degrees of success [5]. There are some reports of successful treatment with systemic retinoids. In the case of one patient treated with 25 mg of acitretin per day, significant improvement was achieved during one year. The lesions stopped spreading and almost disappeared [6]. Another article described how treatment with isotretinoin (0.5 mg/kg/day) for twelve weeks prevented the development of new granulomata and produced an almost complete resolution of established lesions [7].

In conclusion, AG is recognized as a separate entity, although its pathomechanism is not yet fully understood, and the methods of treatment require further extended research.

Consent

The examination of the patient was conducted according to the principles of the Declaration of Helsinki.

The authors certify that they have obtained all appropriate patient consent forms, in which the patients gave their consent for images and other clinical information to be included in the journal. The patients understand that their names and initials will not be published and due effort will be made to conceal their identity, but that anonymity cannot be guaranteed.

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