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Case Report Open Access

An Unusual Presentation of Actinic Reticuloid: A Pigmented and Depigmented Puzzle

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Abstract

Background: Actinic Reticuloid (AR) is idiopathic photosensitivity dermatitis. AR presents with eczematous scaly plaques in a sun-exposed distribution, typically on the head and neck. AR is most commonly seen in older males with a significant history of sun exposure.

Observation: A 64 year-old Hispanic male with a long-standing history of widespread vitiligo, presented with a two-week history of a pruritic, erythematous eruption of his head, neck, and hands. Sun-exposed skin which had been previously depigmented by vitiligo was involved, while normally pigmented sun-exposed areas were spared. Skin biopsy from scaly plaques on his vitiliginous skin was consistent with a diagnosis of AR. Treatment with topical and oral corticosteroids, in combination with sun protection, lead to marked improvement of symptoms.

Conclusion: This case demonstrates an unusual presentation of actinic reticuloid with an unusual predilection for skin which had been previously depigmented due to vitiligo.

Introduction

Actinic reticuloid is a photodermatitis that presents as an erythematous, edematous, and sometimes lichenified pseudolymphomatous eruption in elderly men with extensive sun exposure [1-3]. Although considered by some authors to be a variant of chronic actinic dermatitis (CAD), AR has a unique clinical and histologic appearance [1-5]. While CAD tends to affect Fitzpatrick skin types V and VI[9], such an association has not been reported for AR. Individuals with AR experience heightened sensitivity to ultraviolet radiation, visible light, and in some cases contact allergens [1-3].

AR initially presents with edema and erythema on areas of sun-exposed skin [1]. This progresses to pruritic, eczematous, sometimes lichenified papules and plaques [1,3,6]. Histopathology is variable and can resemble cutaneous lymphoma with an infiltrate of B-cells, T-cells, histiocytes and macrophages [3]. Epidermal thinning, variable parakeratosis, and diffuse spongiosis can also be seen on microscopy [1,2]. The etiology is currently unknown, and the prognosis is unpredictable with some individuals experiencing spontaneous remission [1,7]. Diagnosis can be made by phototesting, patch testing, and biopsy [7]. Treatment options for AR include avoidance of sunlight and known allergens, as well as topical corticosteroids and topical tacrolimus [2,8]. If conservative measures fail, systemic corticosteroids and immunosuppressant agents including azathioprine, and cyclosporine can be used [1,2,5,6,9]. Dermabrasion has been tried in refractory cases [10].

Case Report

A 64 year-old Hispanic male, with a six-year history of vitiligo affecting 90% body surface area, presented for evaluation of an erythematous, pruritic, scaling eruption involving his scalp, face, neck, and hands. The eruption began two weeks prior to presentation and affected only the areas of skin already depigmented by vitiligo. The normally pigmented, sun-exposed skin was unaffected. The patient had no other dermatologic conditions. His medication list included levothyroxine, haloperidol, and benztropine.

Initial biopsy of the posterior neck revealed non-specific inflammatory changes, while repeat biopsy of the same area supported a diagnosis of AR.

The patient began treatment with both topical and systemic corticosteroids along with sun protection. Marked symptomatic improvement ensued. After discontinuation of systemic steroid treatment, the patient experienced a mild flare that was controlled with topical corticosteroids and sun protection (Figures 1 and 2).

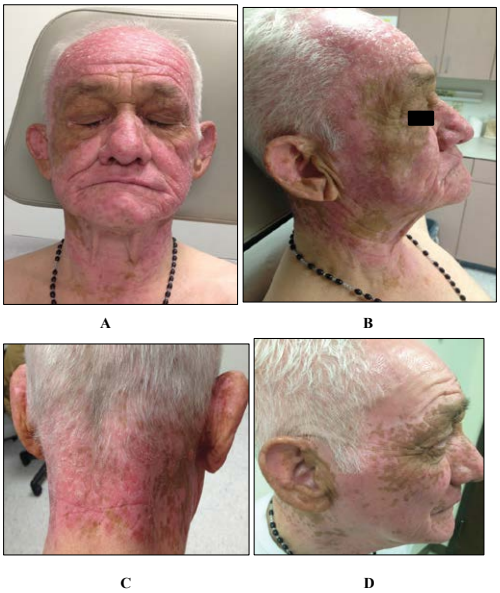

Figure 1: (A-C) Views of actinic reticuloid sparing normally pigmented skin. (D) Improvement in scaling and erythema of involved skin after treatment with oral prednisone, topical steroids, and sun protection.

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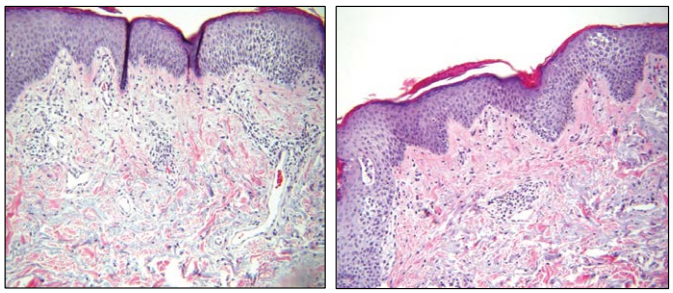

A B

Figure 2: H&E. 20x microscopic view demonstrating mild epidermal acanthosis, a lymphocytic inflammatory infiltrate with wiry collagen in the superficial dermis, scattered stellate fibroblasts, and mild lymphocyte exocytosis into the overlying epidermis associated with mild spongiosis.

Discussion

Actinic reticuloid can be a difficult diagnosis to establish. In addition to photosensitivity, its presentation can be complicated by multiple contact allergies, and symptoms that mimic cutaneous lymphoma [1,2,7].

Use of patch testing to identify relevant contact allergens can aid in diagnosis and treatment [1,2,7], For reasons unknown, AR results in an increased susceptibility for developing delayed-type hypersensitivity reactions [2]. Therefore, avoidance of allergens is a key component of treating AR in patients with contact allergies [1,2,7].

It is also important to differentiate AR from mycosis fungoides (MF), which may present with similar clinical and histopathologic findings [3]. Both AR and MF can lead to erythematous, eczematous, and pruritic skin lesions, with histopathology demonstrating a lymphocytic infiltrate [3,9,11]. Analysis of the CD4/CD8 T-cell ratio of the blood and skin may be useful in distinguishing between AR and MF [9,11]. Actinic reticuloid is characterized by a CD8 T-cell predominance, while a clonal proliferation of CD4 T-cells typically occurs in Mycosis fungoides [1,9,11].

Phototesting is another useful diagnostic tool that may aid in distinguishing AR from many disease processes, including MF [1,7]. Phototesting leads to a dermatitis in patients with AR, while, MF improves with phototherapy, and early stages of the MF are often treated with UVA and UVB radiation [12].

Conclusion

Our case is a unique presentation of actinic reticuloid, in which only sun-exposed skin already depigmented by vitiligo was affected, while normally pigmented, Fitzpatrick type V skin was not involved.

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