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Case Presentation

Lichen planus pigmentosus-inversus involving the post-auricular sulci

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Abstract

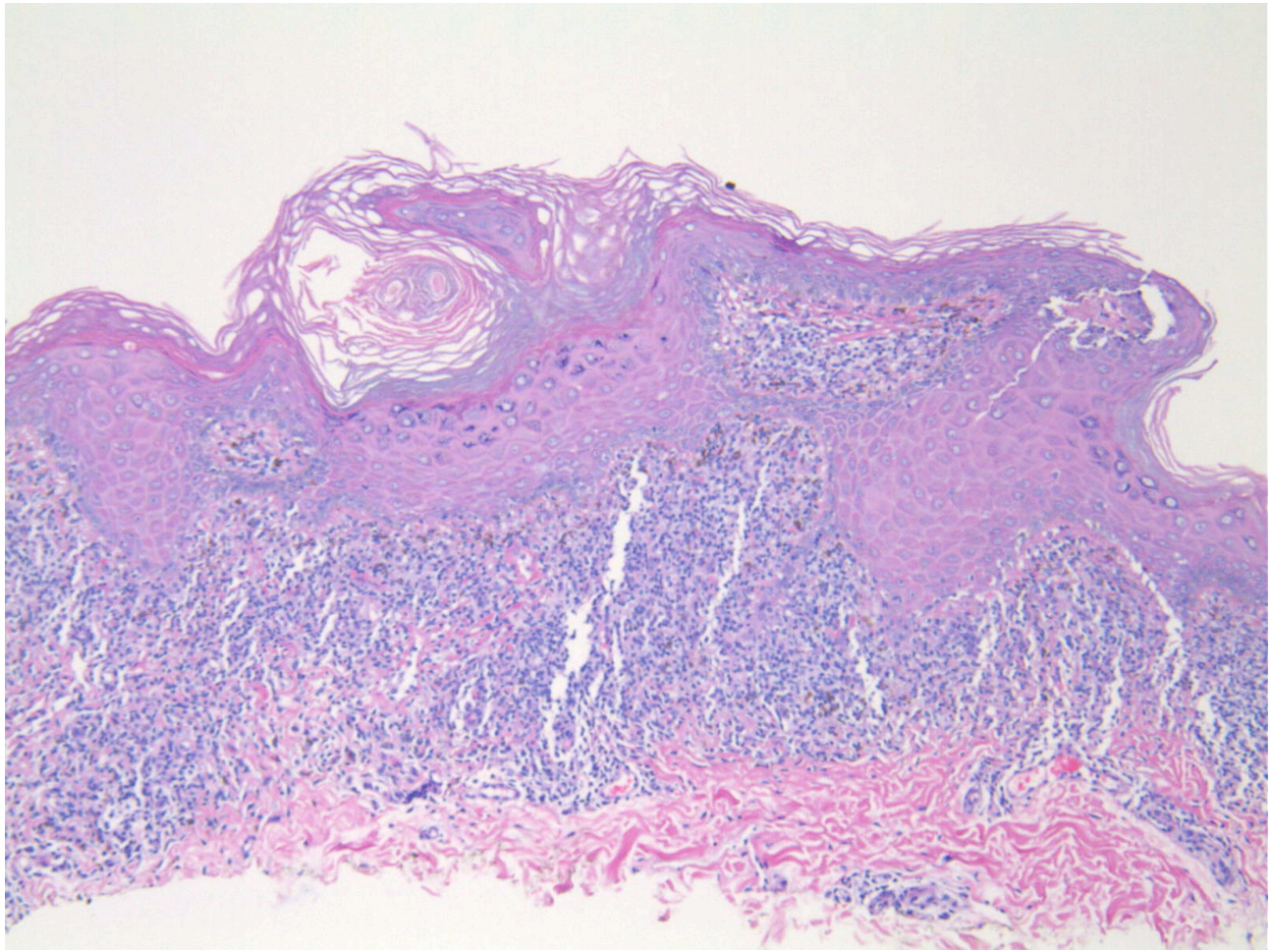
Lichen planus pigmentosus-inversus is rare with only twenty patients (including our patient) formally described in the literature. The reported twenty patients with lichen planus pigmentosus-inversus include eight men and twelve women with ages ranging from 25–84 years (average age of 55.3). Twelve were Caucasian, five were Asian, one was Hispanic and two were of unknown ethnicity. Seventeen out of twenty patients had lesions in the axillae and mild pruritus was present in eight patients. Our patient is the first patient reported to have post-auricular sulcus involvement.

A 47-year-old male with no past medical history and on no medications presented for the evaluation of a 3-month history of an insidious onset of darkening of skin on his bilateral axillae; the areas were slightly pruritic. Physical exam revealed purplish to dark-brown/hyperpigmented macules and patches of his bilateral axillae with satellite lesions extending down to the flanks. Laboratory data were all within normal limits.



(Figure 1). In addition, similar lesions were noted on the right anterior shoulder, intergluteal cleft, and bilateral post-auricular sulci (Figure 2).

The findings of the biopsy specimen were consistent with the diagnosis of lichen planus pigmentosus-inversus.



(Figure 3). Histopathologic examination revealed hyperkeratosis, slight hypergranulosis, and a dense lymphohistiocytic lichenoid inflammatory cell infiltrate with notable pigment incontinence.

Lichen planus pigmentosus is a rare variant of lichen planus that tends to occur in individuals with darker skin types from areas such as the Middle East and India [1]. It is described as asymptomatic or slightly pruritic dark-brown macules and patches in mainly sun-exposed areas and sometimes intertriginous zones [2,3]. In a study of 124 Indian patients with lichen planus pigmentosus, the face and neck were most commonly involved, but intertriginous involvement including the axillae (8.9%), inframammary folds (6.5%), and groin (3.2%) was seen less frequently [1]. Pock *et al* characterized seven Caucasians with lichen planus pigmentosus, arising predominantly in intertriginous areas unrelated to sun exposure, and coined the term lichen planus pigmentosus-inversus to specifically describe this variant [3].

Lichen planus pigmentosus-inversus is rare with only twenty patients (including our patient) formally described in the literature [2-9]. The reported twenty patients with this condition include eight men and twelve women with ages ranging from 25–84 years (average age of 55.3). Twelve were Caucasian, five were Asian, one was Hispanic and two were of unknown ethnicity [2-9]. Seventeen out of twenty patients had lesions in the axillae and mild pruritus was present in eight patients. Our patient is the first patient reported to have post-auricular sulcus involvement. Histologically, lichen planus pigmentosus-inversus is described to have basal liquefaction with or without epidermal thinning, a lichenoid lymphohistiocytic infiltrate, and pigmentary incontinence [2-5,8].

Whereas the etiology of lichen planus pigmentosus-inversus is yet to be determined, cell-mediated immunity may play a role in triggering clinical expression of the disease [2]. Currently, there are no specific treatments, but some authors have reported that lesions slowly cleared without medication within several months [4,5]. Munoz-Perez *et al* reported slight lightening of a lesion with oral deflazacort (an oral glucocorticoid not available in the United States) started at 45 milligrams daily and slowly tapered to 6 milligrams daily over a period of two months [6]. In another patient, lesions gradually cleared with twice daily topical mometasone furoate for nine months [5]. In contrast, Kim *et al* reported insignificant responses with the application of topical tacrolimus ointment twice daily for four weeks and clobetasol propionate ointment twice daily for two weeks [7].

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