Net Letter

Lichen planus pigmentosus inversus

Sir,

Lichen planus is a common inflammatory dermatosis of unknown origin that presents in a variety of morphologic patterns. Lichen planus pigmentosus inversus (LPPI) is one of the rarer clinical forms. We report six cases of LPPI from North Africa [Table 1].

Case 1

A 74-year-old woman presented with a 2-week history of brown macules of the neck [Figure 1a], axillae, inter- and submammary folds, and groin. Medical history included hypertension treated for many years by captopril, furosemide, and nifedepine. A 1-month application of clobetasol propionate produced no significant response.

Case 2

A 60-year-old woman, presented with pruriginous and pigmented patches located in the neck, inframammary folds [Figure 1b], and presacral area which developed over the last 3 years. The patient received oral prednisone (0.5 mg/kg/day) for 2 months but no improvement was noted.

Case 3

A 54-year-old woman presented with a 2-week history of pruriginous purple-brown macules and plaques in the sub-mammary folds, groin, and genitalia. She received topical betamethasone for several months with no improvement.

Case 4

A 60-year-old woman with a history of diabetes, consulted for pruritic, scaly, violaceous-brown macules, and annular brownish plaques arising in the submammary folds and groin. The patient received topical betamethasone with slight improvement.

Case 5

A 49-year-old woman presented with a 2-week history of pruriginous brownish plaques located symmetrically in the axillae, groin, and vulva. No improvement was obtained with topical betamethasone.

Case 6

A 76-year-old woman presented with a 3-month history of pruriginous, brownish macules and plaques in the sub-mammary folds. The patient was treated with topical betamethasone for 2 months with no improvement.

In all these cases, histological examination revealed atrophic epidermis with hypergranulosis, band-like lymphocytic infiltrate of the upper dermis with

Table 1: Clinical, histological, and therapeutic features of our patients

No. of cases	Sex/age	Duration	Site	Histological examination	Treatment	Course
1	74/F	15 days	Neck, axillae, inter- and submammary folds, groin	Thinning of the epidermis, lichenoid dermatitis, and prominent melanin incontinence	Clobetasol propionate ointment	No improvement
2	60/F	3 years	Neck, inframammary folds, presacral area	Atrophic epidermis, hypergranulosis, hyperkeratosis, lichenoid, perivascular lymphohistiocytic infiltrate, pigmentary incontinence	Oral prednisone	Mild improvement of itching, no improvement of lesions
3	54/F	15 days	Submammary, groin, genitalia	Thinning of the epidermis, hyperkeratosis, hypergranulosis, band-like lymphocytic infiltrate	Topical betamethasone	No improvement
4	60/F	1 year	Submammary folds and groin	Epidermal atrophy, lichenoid dermatitis, pigmentary incontinence	Topical betamethasone	Slight improvement
5	49/F	15 days	Axillae, groin, vulva	Lichenoid dermatitis, pigmentary incontinence	Topical betamethasone	No improvement
6	76/F	3 months	Submammary folds	Band-like lymphohistiocytic infiltrate and melanophagia in the papillary dermis	Topical betamethasone	No clinical improvement

F: Female, M: Male

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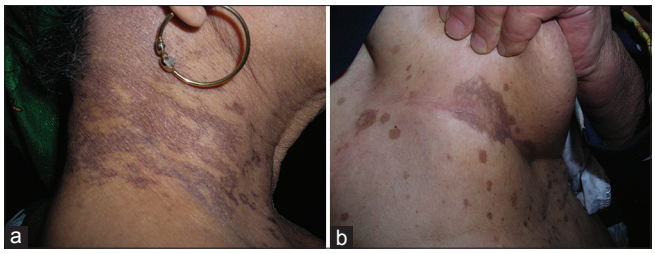

Figure 1: (a) Lichen planus pigmentosus inversus: Pigmented brownish-grey, well-defined macules and plaques located on the neck. (b) Brown, well-demarcated macules and plaques in the submammary folds

abundant colloid bodies, and marked pigmentary incontinence [Figure 2]. Hyperkeratosis was noted in four cases. Clinical and histological features were consistent with the diagnosis of lichen planus pigmentosus inversus in all patients.

Lichen planus pigmentosus inversus is a rare variant of lichen planus, described by Pock *et al*.[1] We found previous reports of 21 cases of whom 13 were females and eight males.[1-5] In our series, all patients were women. The mean duration of symptoms before the diagnosis ranges from 2 months to 15 years.[2] It has been postulated that this condition occurs mainly in Caucasians from central Europe.[1] However, Kashima *et al*., have described two Japanese patients with the disease.[3] We found only one report of lichen planus pigmentosus inversus in a phototype IV woman[4] and did not find previous reports of the disease in North African dark-skinned persons like our patients. Clinically, the condition is characterized by well-circumscribed violaceous-brown macules confined to intertriginous areas[1] It affects mainly the axillae and groin.[2] In our patients, the submammary folds and groin were the most common sites. Skin lesions of classic lichen planus have been described in non-intertriginous areas in 10% of patients[1] but we did not find them in our patients. Histopathological features are similar to lichen planus but there is a marked pigmentary incontinence in the upper dermis.

The differential diagnosis includes fixed drug eruption, acanthosis nigricans, candida intertrigo, erythrasma, post-inflammatory pigmentation, lichenoid toxic dermatitis or ashy dermatosis. The etiopathogenesis of the condition remains unknown. Captopril is known to induce lichenoid eruptions and the onset of symptoms 1 year after initiation of captopril in our first patient may indicate an association. External

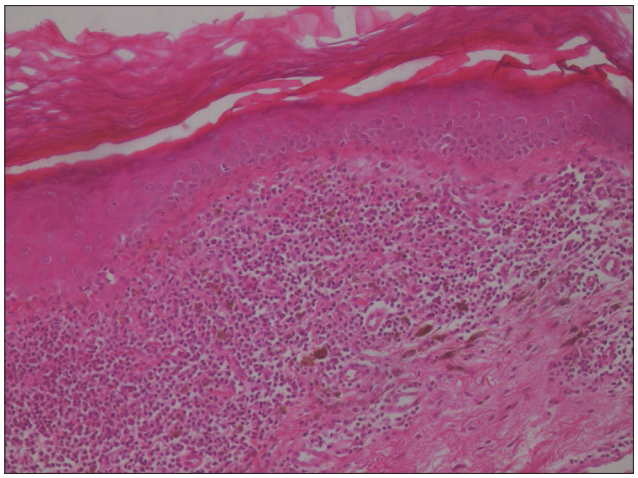

Figure 2: Thinning of the epidermis, a band-like lymphocytic infiltrate with basal vacuolar change, necrosis of keratinocytes and prominent melanin incontinence in the upper dermis (hematoxylin and eosin, ×40)

stimuli, such as friction (Koebner phenomenon), may be a triggering factor.[5]

Pigmented plaques tend to persist for months. Some authors suggest that treatment with medium or high potency topical corticosteroids or calcineurin inhibitors could accelerate the healing process. In our retrospective study, different treatment regimens of topical and systemic corticosteroids had been used without success.

Lichen planus pigmentosus inversus should be considered in the differential diagnosis of cutaneous pigmentation exclusively located in flexural areas.

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