Lichen Planus Pigmentosus with a Linear Pattern

Abstract

Lichen planus pigmentosus, a macular variant of lichen planus, is characterized by slate grey pigmentation and was first seen in the Indian population. We report a case of LPP with a linear distribution. A 27-year-old female presented with asymptomatic dark brown macules from the middle of right calf to the thigh consistent with the pattern of Blaschko's lines. To the best of our knowledge, there are very rare case reports on LPP with a linear pattern. (Iran J Dermatol 2009;12: 134-135)

Keywords: lichen planus, lichen planus pigmentosus, linear, Blaschko's lines

Case Report

A 27-year-old woman presented with asymptomatic dark brown macules which first appeared on calf and then spread gradually to the upper thigh without any preceding erythematous or scaly skin eruptions. There was no history of any systemic illness, drug intake, prolonged sun exposure or trauma on the lesion site. Family history was insignificant. On examination of the whole body, she had linear streaks of dark brown macules from the middle of right calf to the thigh, consistent with the pattern of Blaschko's lines (Figure 1). There was no oral, genital, hair or nail involvement. Liver function tests were normal with negative HCV serology. Skin biopsy showed atrophic epidermis, basal hydropic degeneration with sparse perivascular lymphohistiocytic infiltrates, with incontinence of pigment and the presence of numerous melanophages (Figure 2). These findings were consistent with the diagnosis of lichen planus pigmentosus.

Figure 1. Linear streaks of dark brown macules from the middle of right calf to the thigh
Histopathology showing focal epidermal atrophy, focal hypergranulosis and vacuolar degeneration with superficial lichenoid infiltrate of lymphocytes admixed with melanophages in papillary dermis obscuring the dermoepidermal junction (H&E)**100**

**Figure 2.**

**Discussion**

Lichen planus pigmentosus (LPP), an uncommon variant of LP seen in India or Middle East, is characterized by diffused, mottled, reticulated or perifollicular hyperpigmented, dark brown macules. It differs clinically from the classical lichen planus by exhibiting dark brown macules and a longer clinical course without pruritus or scalp, nail, or mucosal involvement. LPP has been described previously as a pigmented form of actinic lichen planus or as erythema dyschromicum perstans. Recently, however, these diseases have been recognized as different clinical entities. LPP has been anecdotally reported in association with Acrokeratosis of Bazex. Although there have been reports of linear lichen planus, there have been only occasional reports of LPP with a linear pattern.

LPP has been described as a condition of unknown etiology and is most common on sun-exposed areas such as the face, neck, and flexural folds with striking predominance in intertriginous location designated as LPP-inversus. Less common presentations include zosteriform pattern on the trunk, linear unilateral lesion on the extremity and involvement of non-sun-exposed areas such as thigh. The linearity of the lesions in our case was related to Blaschko's lines, which suggested that the predisposition to develop LPP might be determined during embryogenesis. The cause of Lichen planus pigmentosus is unknown. As in lichen planus, type IV hypersensitivity reactions seem to play an important role in its pathogenesis. The differential diagnoses include lichen striatus, linear and whorled nevus, incontinentia pigmenti, linear lichen planus and other dermatoses with a linear pattern. LPP should be considered in the differential diagnosis of linear hyperpigmented skin lesions. No specific treatment is available for lichen planus pigmentosus.

Multiple drugs have been used, including topical steroids, topical tacrolimus and keratolytics. Some cases respond to a 10% aqueous solution of DMSO applied topically. Other drugs used with inconsistent results are griseofulvin, prednisone, etretinate, and chloroquine.

**References**