

Case Report

Linear lichen planus: a case report

MM Rashid*, MA Sikder*, S Hoque**, E Kabir **

* Department of Dermatology and Venereology Bangabandhu Sheikh Mujib Medical University, Shahbag, Dhaka, Bangladesh

** Department of Dermatology and Venereology, Bangladesh Medical College, Dhaka, Bangladesh

Abstract Linear lichen planus (LP) is one of the rare variants of disease. We report here a case of linear LP who presented himself in the out-patient clinic with multiple papules and plaques which coalesced in a linear fashion over the left lower extremities extending from foot to thigh.

Key words

Lichen planus, linear

Introduction

Lichen planus (LP) has certain clinical variants which may present difficulty in diagnosis especially when the lesions happen to be arranged in a linear fashion. Linear lesions as a Koebner effect are frequently found in LP but isolated long, narrow, linear lesions which may extend the whole length of the limb are rare.¹ It may be zosteriform and follows the lines of Blaschko.² Although it is common in children but is also seen in adults.³ Its pathogenesis is unknown but certainly has an immunological basis. Cell-mediated immunity seems to play a critical role in the development of LP. Lesions tend to be papular with hyperkeratosis or simple

hyperpigmentation often with skip lesions. Other areas as nails, mucous membranes or hair may be affected in classic LP. The treatment modalities for linear lichen planus are similar to those of the classic LP or other variants. However there are some recalcitrant forms which are very difficult to treat. The first line of treatment of any form of LP is still high potent topical corticosteroid or systemic corticosteroid as prednisolone. Alternative therapies include topical and systemic retinoids, griseofulvin and cyclosporine. Other modalities like PUVA, thalidomide, mycophenolate mofetil, low molecular weight heparin and iontophoresis have also been reported to be effective.^{4,5}

Case report

A 30-year-old male reported to the outpatient department of Bangabandhu Sheikh Mujib Medical University on August 20, 2007 with 6 months complaints of linear plaques extending from left upper thigh to the lower leg with intense itching. He had no constitutional symptoms. He was non-

Address for correspondence

Dr. Muhammad Munir Rashid,
Associate Professor

Department of Dermatology and Venereology,
Bangabandhu Sheikh Mujib Medical University
Room No. 309, Block C, Shahbag, Dhaka,
Bangladesh

Ph. 88-01817048733

E mail: rmunir@dhaka.net



Figure 1 Linear plaque of lichen planus over left thigh and calf



Figure 1 Linear plaque of lichen planus over left thigh (close up).

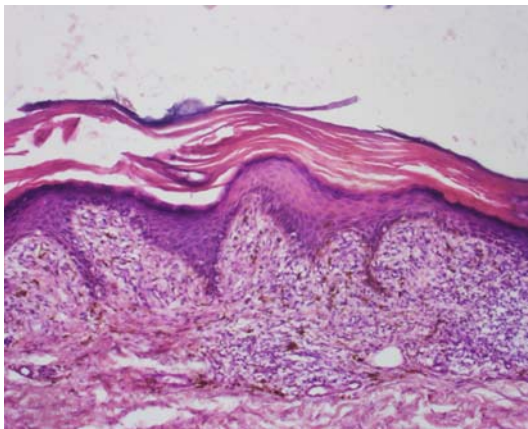


Figure 3 Histopathology of the lesional skin

hypertensive and non-diabetic without any past history of major illness. All his family members were in good health. His general condition was well. His temperature was 98.6°C, respiratory rate 18/min, blood

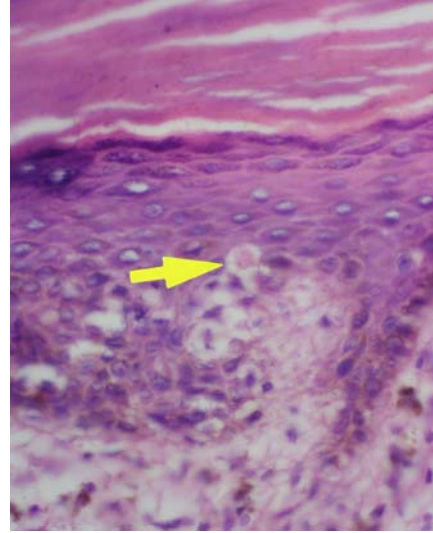


Figure 4 Colloid bodies in the upper dermis

pressure was 120/80 mmHg and pulse was 80/min. On examination of skin, there were violaceous papules, some of which coalesced to form plaques arranged in linear fashion with scales and excoriations extending from left foot to the upper part of the thigh (**Figures 1** and **2**). The lesion extended to the inner parts of the thigh. There was no erythema and the lesions were dry. The mucous membrane, hair and nails were spared. Values of all routine laboratory examination were within the normal range. Histopathological examination from the lesional skin revealed hyperkeratosis with beaded hypergranulosis, irregular rete ridges with saw tooth appearance (**Figure 3**), and vacuolar degeneration of basal layers in the epidermis. Melanin incontinence and band-like lymphocytic infiltrate were present in the upper dermis with some diagnostic colloid bodies (**Figure 4**). He was treated with tab griseofulvin 500mg daily for 2 months, intramuscular triamcinolone acetonide 40 mg stat and monthly for 2 months and tab loratadine subject to itching. Topical clobetasol propionate ointment was applied twice a day. The patient started to

respond two weeks later with flattening of lesion and decrease in itching.

Discussion

There are many variants of LP including hypertrophic, follicular, linear, actinic, pigmentosus, annular, atrophic, erosive, bullous and guttate principally involving skin and mucous membranes.

Small linear lesions caused by Koebner's phenomenon often occur in classic LP. Limitation of disease to one band or streak has also been described in less than 1% of patients, except in Japan, where up to 10% of reported cases are linear.⁶ LP has a worldwide distribution with no overt racial predisposition. LP represented about 1.2% of all new patients in London and Turin, 0.9% in Copenhagen and 0.38 % in India.⁷ Hypertrophic cases were reportedly common in Nigeria. LP is characterized by shiny, violaceous, flat-topped polygonal papules which retain the skin lines and which vary in size from pinpoint to a centimeter or more across; they may be closely aggregated or widely dispersed. Itching is a fairly consistent feature in LP and ranges from occasional mild irritation to more or less continuous, severe itching, which interferes with sleep and makes life almost intolerable.

Our patient had a typical history and clinical appearance regarding lichen planus. The linear pattern should be differentiated from the nevus unius lateralis and lichen striatus. A zosteriform pattern has been described and linear LP may develop at the site of herpes zoster.⁸ Isolated linear lesions, usually made-up of small papules in close apposition, sometimes becoming confluent are rare; they are more common in

childhood.⁹ Linear LP lesions are usually only a few centimeters in length, but long, narrow linear lesions extending the whole length of a limb may occur. Such cases may overlap with epidermal nevi and the term lichenoid epidermal nevus has been introduced.¹ Multiple linear LP lesions following the lines of Blaschko have been reported^{3,10} and multiple linear LP was documented in an HIV patient.¹¹ The histology of linear LP is characteristic and enables distinction from other linear dermatoses such as lichen striatus, linear nevi and linear psoriasis.

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