

# Unilateral Blaschkoid lichen planus: A case series of rare entity

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**Abstract** Lichen planus is an idiopathic inflammatory dermatological condition affecting skin and mucosa. Certain variants of lichen planus may present a difficulty in diagnosis especially when the lesions are arranged in linear or blaschkoid pattern. Correct diagnosis and treatment of this condition are necessary to prevent any undue investigation and for cosmetic appearance. We herein report case series of 3 patients with unilateral blaschkoid lichen planus.

**Key words**

Acantholytic, interface dermatitis, lichen planus, Blascko lines.

## Introduction

Lichen planus is an idiopathic inflammatory dermatological condition affecting skin and mucosa. Certain variants of lichen planus may present a difficulty in diagnosis especially when the lesions are arranged in linear pattern. We herein report case series of 3 patients with unilateral blaschkoid lichen planus.

## Case reports

**Case 1** A 25 year old male patient presented with chief complaint of hyperpigmented raised lesion over right axilla since 5 months. The lesions were pruritic but there was no pain or discharge. The lesions were gradually expanding. There was no history of trauma, fever, or any stress factor. No history of any drug intake could be elicited. On examination

the lesions were, violaceous to hyperpigmented macules involving T1 and T2 dermatome (**Figure 1**). Nails, mucosa and scalp examination was completely normal. Systemic examination was essentially normal. Dermoscopic examination of the lesion with Dermlite D14 showed wickham striae with multiple pigmented globules in surrounding (**Figure 2**).

With the provisional diagnosis of progressive cribriform and zosteriform hyperpigmentation and blaschkoid lichen planus, skin biopsy of the lesion was done. Histopathological examination of the lesion revealed basket weave hyperkeratosis and a cluster of colloid bodies. Prominent melanin incontinence along with features of interface dermatitis were seen (**Figure 3**). These findings were consistent with findings of lichen planus. The patient was given topical potent corticosteroids and antihistaminics for 2 weeks, pigmentation slightly improved.

**Case 2** A 34 year old female presented with pruritic rash over left upper limb, left lower limb and left side of trunk. There was no significant past history. On examination, the lesions were violaceous flat topped 2-3 mm papules, along

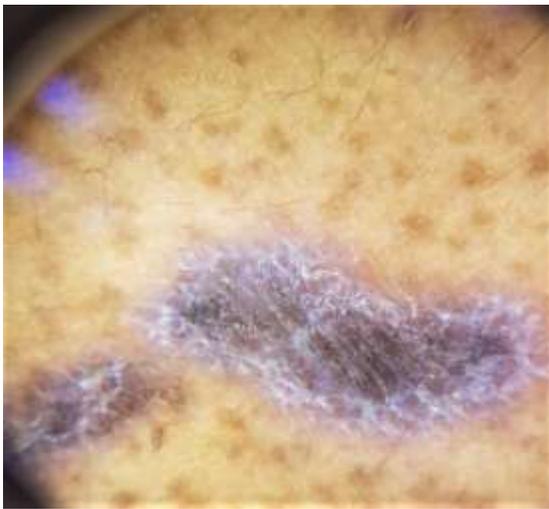
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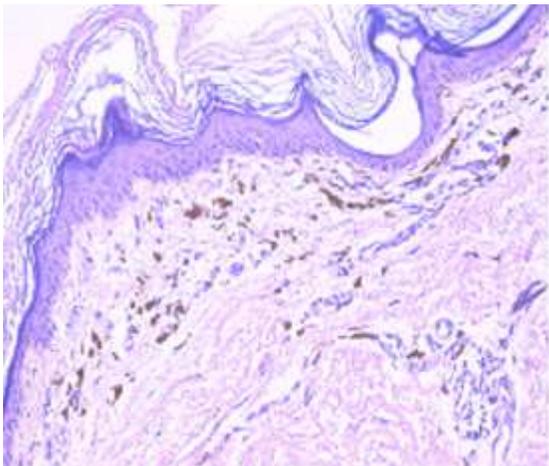
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**Figure 1** Violaceous hyperpigmented macules can be seen in the axilla.



**Figure 2** Dermoscopic examination shows Wickham striae and multiple pigmented globules.



**Figure 3** Prominent melanin incontinence and features of interface dermatitis.

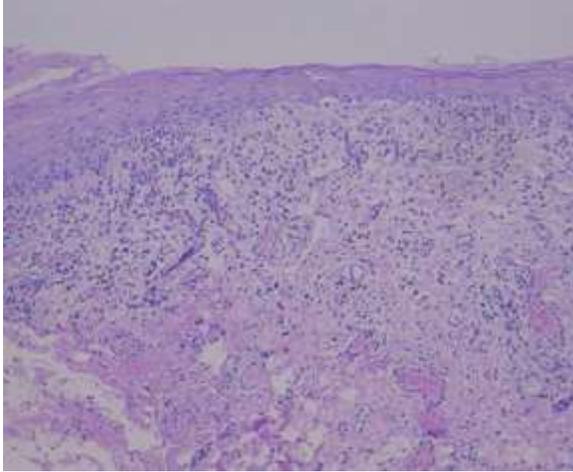


**Figure 4** Blaschkoid lichen planus lesions on left upper trunk.



**Figure 5** Nail examination revealed onychoschizia, prominent longitudinal striations, thinning and melanonychia.

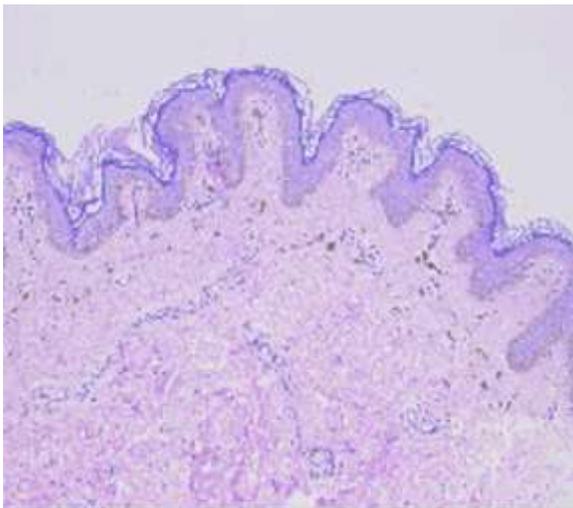
the blaschko's lines (**Figure 4**). The lesions did not cross midline. Nail examination revealed onychoschizia, prominent longitudinal striations, thinning and melanonychia (**Figure 5**). A preliminary diagnosis of lichen planus was made. Histopathological examination revealed parakeratosis, abutting the basal layer showing vacuolization, squamatization and occasional apoptotic keratinocytes. Lymphoplasmocytic infiltrate was also seen in lamina propria (**Figure 6**). The features were consistent with the findings of lichen planus.



**Figure 6** Histopathological examination revealed parakeratosis, abutting the basal layer showing vacuolization, squamatization and occasional apoptotic keratinocytes.



**Figure 7** Spiral hyperpigmented lesion on (a) left side of trunk and left upper limb and (b) left lower limb.



**Figure 8** Sparse perivascular lymphocytic infiltrate with numerous melanophages was seen.

All the laboratory investigations including G6PD were within normal limit. The patient was prescribed oral dapsone 100mg h.s. along with topical corticosteroid and oral antistaminics. The lesions improved over 2 months, but the hyperpigmentation still remained.

**Case 3** A 28 year old female presented with multiple spiral purple coloured lesions over left upper limb, lower limb and left side of trunk (**Figure 7a & 7b**). The lesions were associated with itching. No history of trauma, any topical or oral medication was present. Nail examination was normal. Oral mucosa showed reticulate pattern of lichen planus. Serological investigations were within normal limit. Histopathological examination showed basket weave stratum corneum covering epidermis. Sparse perivascular lymphocytic infiltrate with numerous melanophages was seen (**Figure 8**). On the basis of clinical and histopathological examination, the diagnosis of blaschkoid lichen planus was made. The patient was given treatment in form of potent topical corticosteroids and antihistaminics. The response to treatment was favorable, with decrease in itching and improvement in the clinical picture.

## Discussion

The classical presentation of lichen planus include purple, polygonal, pruritic papules and plaques.<sup>1</sup> Other morphological variants include hypertrophic, atrophic, actinic, guttate, erosive etc. Blaschkoid lines demonstrate a type of mosaicism, which determine the localization of many dermatological diseases. They are V-shaped over upper spine, S-shaped over abdomen and U-shaped over chest and upper arm. Blaschkoid lichen planus is one of the dermatosis in this pattern. It is a rare clinical entity with prevalence of 0.5 to 1 % in various studies.<sup>2</sup> The differential diagnosis for the

condition include lichen striatus, progressive cribriform and zosteriform hypermelanosis, inflammatory linear verrucous epidermal nevus, linear psoriasis, linear and whorled nevoid hypermelanosis etc.

Apart from blaschkoid lichen planus, linear lesions have also been reported in other variants of lichen planus like atrophic lichen planus<sup>3</sup>, lichen planus follicularis<sup>4</sup> and lichen planus pigmentosus.<sup>5</sup>

Lichen planus in dermatomal distribution which has been rarely reported in literature. Thus, blaschkoid lichen planus should be considered in the differentials of linear lesions in dermatology. Correct diagnosis and treatment of this condition are necessary to prevent any undue investigation and for cosmetic appearance.

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