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BLASCHKOID LICHEN PLANUS IN AN ADULT MALE MIMICKING LINEAR AND WHORLED HYPERMELANOSIS: A CASE REPORT

Dermatology

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ABSTRACT

Blaschkoid lichen planus (BLP) is an uncommon clinical variant of lichen planus characterised by lesions distributed along the lines of Blaschko. It is rare in adults and often poses diagnostic difficulty due to its resemblance to other linear dermatoses. We report a case of a 40-year-old male presenting with unilateral blaschkoid distribution of violaceous macules and papules over the left side of the body mimicking linear and whorled hypermelanosis.

KEYWORDS

Blaschkoid lichen planus, Linear inflammatory eruptions, Linear dermatoses, Cutaneous mosaicism

INTRODUCTION

Lichen planus is a chronic, inflammatory, and immune-mediated dermatosis that involves the skin, mucous membranes, hair, and nails. The classical form of lichen planus is characterized by planar, purple, polygonal, and pruritic papules [1]. Blaschkoid lichen planus represents a rare clinical variant, constituting only a small subset of lichen planus cases. It manifests along Blaschko's lines, which correspond to embryonic cell migration pathways and represent the most common pattern of cutaneous mosaicism [2]. This condition is uncommon in adults and may clinically resemble linear and whorled nevoid hypermelanosis (LWNH), linear lichen striatus, linear epidermal nevus (VEN), or inflammatory linear verrucous epidermal nevus (ILVEN), as well as Blaschkoid lichen planus pigmentosus, thereby posing a diagnostic challenge [3]. The majority of reported cases of Blaschkoid lichen planus consist of polygonal violaceous papules and plaques, although annular, vesicular, and hypertrophic morphologies have also been documented [4]. The present case is reported owing to its rarity and the atypical manifestation of predominantly macular lesions.

CASE STUDY

A 45-year-old male presented with multiple asymptomatic, violaceous lesions, predominantly macules with a few papules, arranged in a linear and whorled pattern extending from the left side of the back to the anterior left chest and further onto the left upper limb, involving both the flexor and extensor surfaces (Figure 1,2). The patient reported a gradual onset over three months, with no history of preceding infection, trauma, or medication exposure.

Clinical Findings

- Macules were violaceous to hyperpigmented, discrete to confluent at places to form large macules.
- Papules were violaceous, polygonal, and discrete and only a few in number.
- Distribution followed Blaschko's lines in S-shaped and whorled patterns.
- No mucosal lesions, scalp involvement, or nail changes were observed.
- The patient no itching or other systemic complains

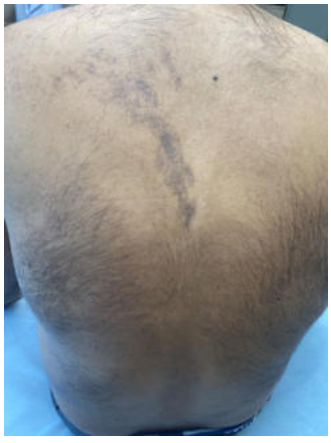

Figure 1: Lesions starting from left side of back

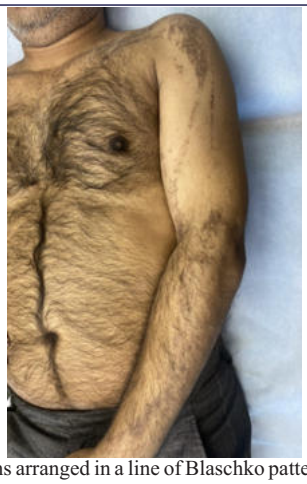

Figure 2: Lesions arranged in a line of Blaschko pattern and involving left upper limb.

A provisional diagnosis of Blaschkoid lichen planus was considered. Linear and whorled hypermelanosis was included in the differential diagnosis. As the condition was acquired and not preceded by an inflammatory phase, lichen striatus, inflammatory linear verrucous epidermal nevus (ILVEN), and verrucous epidermal nevus (VEN) were excluded.

Histopathology (Figure 3)

A punch biopsy from a representative lesion revealed:

- Hyperkeratosis and focal hypergranulosis
- Irregular acanthosis
- Flattening of rete ridges
- Band-like lymphocytic infiltrate at the dermo-epidermal junction
- Basal cell vacuolization.
- Mild perivascular mononuclear inflammatory infilterate

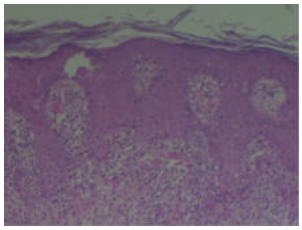

Figure 3: Image showing histopathological features that are consistent with lichen planus.

Diagnosis

Based on the characteristic histopathological findings and the blaschkoid pattern of distribution, a final diagnosis of Blaschkoid lichen planus was established.

Management

The patient was started on:

- Topical corticosteroid (clobetasol propionate 0.05%) applied twice daily

- Oral antihistamines for symptomatic relief
- Emollients to maintain skin hydration

DISCUSSION

Blaschkoid lichen planus is an under-recognized clinical variant. Its unilateral, linear, or whorled configuration along Blaschko's lines supports the hypothesis of somatic mosaicism or a post-zygotic mutation that induces lichenoid inflammation within selected cutaneous clones. No precipitating factor was identified in the present case. In comparison with classical lichen planus, Blaschkoid lichen planus typically exhibits a more localized distribution, a more persistent course, and comparatively reduced responsiveness to therapy. Previous literature has described the histopathological features of linear and whorled nevoid hypermelanosis (LWNH) as diffuse basal layer hyperpigmentation with increased numbers of basal melanocytes demonstrating prominent but non-atypical nuclei. Giant melanosomes and pigment incontinence are not characteristic findings of LWNH, although mild lentiginous elongation of some rete pegs may be observed. The histopathological features in the present case differed entirely from those described in LWNH [5].

CONCLUSIONS

Blaschkoid lichen planus is a rare clinical variant that should be considered when evaluating unilateral linear hyperpigmented dermatoses in adults. Recognition of its characteristic distribution, along with supportive histopathology, aids in timely diagnosis and appropriate management.

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