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Unilateral Blaschkoid Linear Atrophoderma of Moulin

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Abstract:

Linear atrophoderma of Moulin was first described by Moulin in 1992, as an acquired hyperpigmented atrophic band along Blaschko's lines. We present a typical unilateral Linear Atrophoderma of Moulin in a young male along Blaschko's line. This case is presented because of its rarity and classical morphological pattern as described. Differentiation is necessary from other dermatoses, as disease progression, course of treatment, and prognosis vary according to the pathology involve

Keywords: Atrophoderma; Linear Atrophoderma; Moulin

INTRODUCTION

Linear atrophoderma of Moulin (LAM) was first described by Moulin in 1992 as an acquired hyperpigmented atrophic band along Blaschko's lines [1]. According to Browne and Fisher, there are two variants of this entity: inflammatory and non-inflammatory [2] The pathogenesis of LAM is associated with autoimmunity [3]. It is a rare linear dermatosis, usually presenting in childhood or early adolescence as linear hyperpigmented atrophic plaques without prior inflammation or sclerotic appearance. Atrophoderma of Pasini and Pierini resembles linear atrophoderma of Moulin, both clinically and histologically, except that it does not follow a blaschkoid pattern. Morphea (localized scleroderma) is an inflammatory condition primarily affecting the dermis and sometimes extending into subcutaneous fat and fascia, which produces thickening and hardening of the skin [4]. Morphea is differentiated from linear atrophoderma of Moulin by the presence of dermal sclerosis and appendageal atrophy, and replacement of adipose tissue by collagen. LAM is of rarity in presentation and differentiation is necessary from other dermatoses because of its benign course.

CASE PRESENTATION

A 21-year-old male presented to our outpatient department with a total illness duration of 16 years, with non-progressive, asymptomatic, unilateral hyperpigmented, depressed linear lesions over the left side of his trunk and back. On examination, linear hyperpigmented atrophic plaques with cliff drop borders were present along the Blaschko's lines extending from the umbilicus to the left side of the trunk and back (Figure 1). There was no induration or any signs of inflammation over the lesions. Antinuclear antibody was negative. Histopathological examination showed sparse superficial and deep perivascular lymphocytic infiltrate with flattening of epidermal rete pattern. Reticular dermal collagen was thinned in places and arranged parallel to the surface epidermis. The sweat units were present in mid-dermal reticular dermis, suggestive of atrophoderma (Figure 2). The diagnosis of Linear atrophoderma of Moulin was made based on the history, physical examination, and histopathology examination. The patient was given treatment of topical calcipotriol but was lost to follow up.

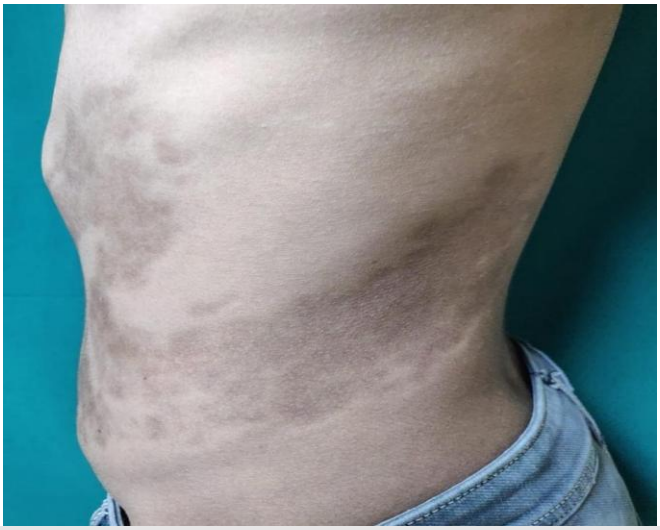

Figure 1: Linear hyperpigmented atrophic plaques with cliff drop borders along Blaschko's lines extending from the umbilicus to the left side of the trunk and back

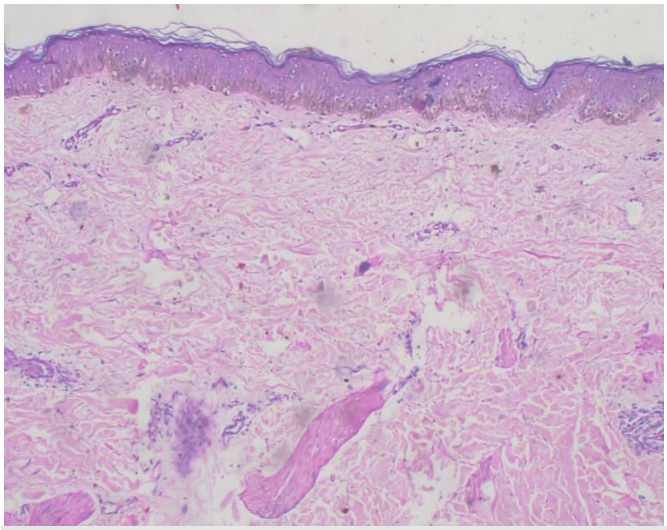

Figure 2: Deep perivascular lymphocytic infiltrate with flattening of epidermal rete pattern along with presence of sweat units in mid reticular dermis

DISCUSSION

LAM is a rare entity with a self-limited course. Systemic associations are rare. It is easily diagnosable in a clinical setting by proper history taking and physical evaluation of the lesion. LAM occurring in various parts of the body, like one rare entity occurring in the face has been described in a 16-year-old [5]. The general description is along the Lines of Blaschko. The clear-cut pathogenesis of LAM is not understood fully, but some hypotheses point to the possible factors involved in the causation. One of them can be genetic mosaicism, which may explain their unilateral distribution along Blaschko's lines [7].

Some cases reported elevated immunoglobulin M and positive antinuclear antibodies, which also indicates the possible involvement of the immune system [8]. Currently, there is no standard treatment regimen for LAM. Following treatment options have been tried: topical calcipotriol, topical corticosteroids, topical PUVA therapy, platelet-rich plasma therapy, etc, but with limited effectiveness. Recently, methotrexate has been tried with effectiveness in the treatment of generalised LAM [6]. This case is presented here because of its rarity and classical morphological pattern.

ADDITIONAL INFORMATION AND DECLARATIONS

Ethics approval and consent to participate:
Not applicable

Consent for publication: Informed consent was obtained from the patient for publication.

Competing interest: None

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