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Case Report

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LICHEN STRIATUS: SUCCESSFUL TREATMENT WITH ACITRETIN

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ABSTRACT

Lichen striatus is a self-limiting dermatosis presenting with sudden eruption of lichenoid papules along the lines of Blaschko. A 11-year-old girl presented with asymptomatic hypopigmented linear lesions over posterior aspect of left leg. The histopathological examination revealed spongiosis, vacuolar alteration of the basal layer and lymphocytic exocytosis with a mild-to-moderate perivascular mononuclear infiltrate in the dermis. Lichen striatus was diagnosed based upon the characteristic clinical and histopathological findings. The pathogenetic mechanism of bilateral lichen striatus is unknown at present, however, a somatic mutation in two different clones of cells can be a possibility. The patient was successfully treated with acitiretin 25 mg OD on alternate days for one month. The lesions resolved within a month leaving no sequelae.

INTRODUCTION

Lichen striatus (LS) is a rare, self-limited dermatoses. It can be seen in all age groups, and mostly affecting 3-15 years old female patients.[1] It is characterized by small linear, pink, likenoid, initially discrete but rapidly coalescing papules. The diagnosis is usually made on the basis of clinical examination but sometime it can be difficult to differentiate it from other linear dermatosis. The histopathological findings are non-specific but is significant for making a differentiation for LS and other linear dermatosis. Herein, we present a case of a young girl developing LS on the trunk.[2]

CASE REPORT

A 11-year-old girl presented with a hypopigmented linear band on the posterior aspect of left leg since 2 month. (Figure 1)

The lesions first appeared on the posterior aspect of left leg and later extended linearly to involve the posterior aspect of the arm and trunk on the same side.

Further, her parents had also noticed hypopigmented pin head-sized asymptomatic raised lesions on the contralateral forearm in the last 7 days.

The lesions were not itchy. Nails were uninvolved. There were no features suggestive of atopy. Skin biopsy from the right forearm showed mild hyperkeratosis, spongiosis, vacuolar alteration of basal layer and lymphocytic exocytosis with a mild-to-moderate perivascular mononuclear inflammatory infiltrate and melanin incontinence in the dermis.

A distinctive feature of lichen striatus is a dense infiltrate extending deep into the dermis around the hair follicles and eccrine sweat glands and ducts in some cases, which was absent in our case. It was diagnosed as a case of lichen striatus based upon the characteristic clinical and histopathological findings. The patient was successfully treated by giving acitretin 25 mg 1 OD alternate days for one month. The lesions resolved within a month leaving no sequelae. (Figure 2)

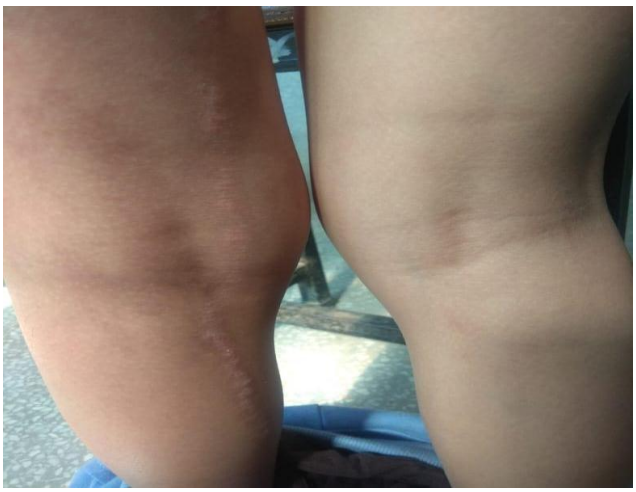

Figure 1: Patients before treatment.

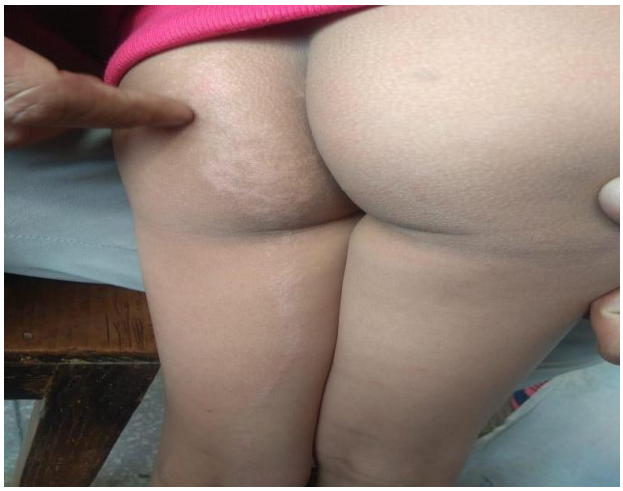

Figure 2: Patients after treatment.

DISCUSSION

LS is characterized by shiny, flat erythematous papules that vary from 2 to 4 mm, following Blaschko lines, which coalesce in liner disposition, forming a band that can be discontinuous.[4] The papules appear over 2 to 3 weeks and often have a lichenoid appearance without Wickham's striae.[5] Lesions are generally asymptomatic and rarely can be accompanied by pruritus. LS lesions are typically solitary and unilateral. Unilateral or bilateral multiple lesions are very rare. Lesions are generally distributed on the extremities but also on the neck and trunk.[6]

Nail involvement occurs exclusively in children, and is most often restricted to one nail. Longitudinal ridging and splitting are common clinical features of nail involvement in LS. The course of the disease is prolonged between 6 months to 5 years when nail involvement exists. It has a sudden onset and the mean duration of this self limited disease is about 9 months frequently with residual hypopigmentation.[7]

LS etiology is as yet unknown. Studies have shown that LS is a T cell mediated inflammatory skin disease. LS are defined in inflammatory acquired Blaschko-linear dermatoses. Blaschko lines have an embryologic origin and correspond to the direction of growth of the cutaneous cells, resulting in a cutaneous mosaicism . In acquired Blaschko-linear dermatoses, initially the abnormal clone of keratinocytes is not clinically obvious. According to many authors, presence of epithelial cells genetically abnormal that through a triggering event can be known by the immune system and alternatively, the affected skin may respond to a precipitant with an over T cell mediated inflammatory response, apparent in Blaschko lines. A majority of cases occur in the spring and summer, suggesting that the infections and environmental factors are associated with LS. Vaccinations, trauma and pregnancy have been reported as other precipitating factors.[8-9]

In the present case report, the closest differential diagnosis was verrucous epidermal nevus, it was ruled out on the basis of histopathology findings. The patient was resistant to topical steroid treatment and was successfully treated with oral acitertin. Therefore, it can be assumed that therapeutic efficacy of acitretin is attributable to its effect on cutaneous immunomodulation as well as epithelial cell proliferation and differentiation.

CONCLUSION

Lichen striatus is a rare dermatosis following the lines of Blaschko. LS should be considered at the differential diagnosis of diseases following the blaschko lines. The knowledge of benign course of disease protects patients from unnecessary tests and treatments. The present case report support the efficacy of oral acitretin in the treatment of lichen striatus. Further studies and reports are however needed in order to confirm these findings.

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