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Case Report

A pediatric case of resistant lichen planus pigmentosus treated with colchicine

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ABSTRACT

This is a case report of a 8-year-old child with lichen planus pigmentosus (LPP), a rare subtype of pediatric lichen planus, successfully treated with colchicine after failure of other therapeutic options. Colchicine was introduced at a dose of 0.5mg/day for 1 year with sun protection, resulting in cessation of the eruption's extension and decrease in hyperpigmentation. No adverse effects were observed. This case highlights the potential of colchicine as a treatment option for pediatric patients with LPP, although further studies with larger sample sizes and longer follow-up periods are needed to establish its safety and effectiveness.

Keywords: Lichen planus, Lichen pigmentosus, Pediatric, Colchicine

INTRODUCTION

Lichen planus pigmentosus (LPP) is one of the rarest subtypes of pediatric. Lichen planus (LP), characterized by "dark gray macular pigmentation located on sun-exposed areas of the face, neck, and flexures. The diagnosis was based on the histopathological examination of a skin biopsy and his treatment is often challenging.

We present a pediatric case of LPP successfully treated with colchicine after failure of the other therapeutic options.

CASE REPORT

A 8-year-old child, with no previous medical history, consulted for the spontaneous appearance of non-pruritic hyperpigmented macular rash that appeared initially on the trunk and then spread to the limbs and neck, sparing the face and without affecting the mucosal surfaces, nails and hear (Figure 1).

The patient's biological workup was normal, including a negative hepatitis C antibody test. Histopathological examination of the lesion was compatible with lichen pigmentosus showing a lichenoid inflammatory infiltrate with vacuolation of the basal membrane and pigmentary incontinence (Figure 2).

There were no systemic associations, including autoimmune disease, endocrine disorders, or hepatitis.

The patient had been treated previously for a year with topical corticosteroids with no improvement.

Given the extent of the eruption, the patient received initially a oral tranexamic Acid 250 mg/dr for 6 months, then oral corticosteroid therapy in mini pulse 20 mg/week for 6 months without improvement

The rash caused embarrassment and negatively impacted his quality of life.

Considering the patient was unresponsive to oral acide tranexamique and corticosteroid therapy we introduced a colchicine 0.5mg/day for 1 year with sun protection.

The evolution was marked by the cessation of the extension of the eruption and the decrease of hyperpigmentation (Figure 3). The retreat is 6 months. No adverse effects were noted.

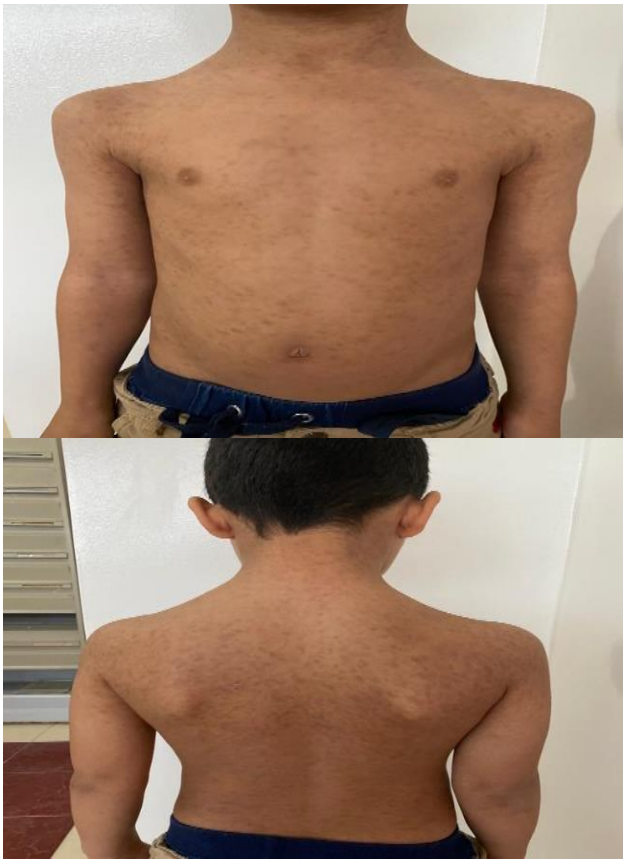

Figure 1: Hyperpigmented macular rash on the trunk and back.

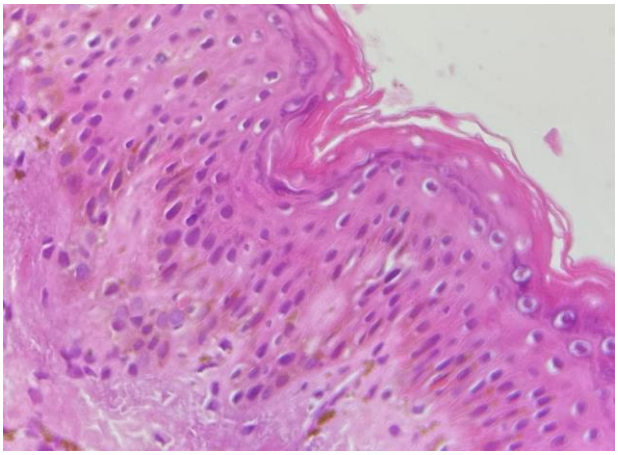

Figure 2: Histopathology showing acanthosis, and hyperpigmentation of the basal area and melanin incontinence of the dermis.

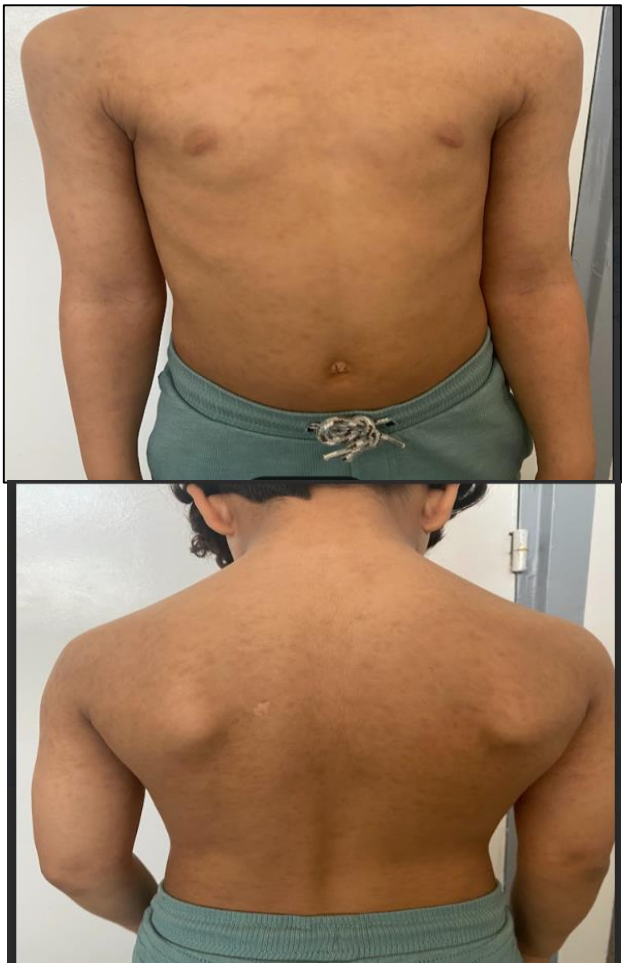

Figure 3: Evolution of the lesions one year after the beginning of the treatment with colchicine.

DISCUSSION

LPP, a pigmentary disorder seen espe- cially in India and in the Middle East, is a rare variant of lichen planus (LP), uncommonly reported in children. In the largest series published by Pandhi et al it represented 2.8% (nine cases of LPP among 316 children with lichen planus).[1] Distribution of LPP includes common type, inversus, linear, and palmoplantar type.[2] The common LPP characterized by chronic acquired dark brown to gray macular pigmentation with an unclear etiology and pathogenesis. It affects not only sun-exposed areas of the face and neck but also sun-protected flexural skin, such as the axillae and inguinal areas. It is common in middle-aged patients with dark skin and is rare in Caucasians.[3] In a literature review of LPP, few pediatric cases have been reported. Twenty-one cases were identified including common type (n=14), inverse (n=3), linear (n=3), palmoplantar (n=1), periorbital (n=1), and oral (n=1).[2]

Treatments for LPP are often unsatisfactory because no improvement is seen and recurrences are frequent. Several therapies have been reported in literature as partially effective such as retinoids, systemic and topical corticosteroids, tacrolimus ointment (0.1%), and oral

diamino-diphenyl- sulfone (dapsone).[4] Conversely, colchicine has never been proposed so far. In LPP we do not exploit the action of colchicine on polymorphonucleates but its immune-modulating action and anti- inflammatory action in particular through the inhibition of mediators of inflammation such as TNF alpha, which is involved in the pathogenic mechanism of LPP.[5] The main side effects of colchicine are leukopenia and rhabdomyolysis. Other side effects could be nausea, vomit, diarrhea, and abdominal tenderness that fortunately were not experienced by our patient. Recently, Kanwar and Parsad have reported the improvement of patients diagnosed clinically as LPP treated with colchicine. They noted 30-80% reduction in the intensity of pigmentation in 20 patients, while no improvement was seen in five patients.[6] A similar case was recently described by Cozzani et al in a 50-year-old woman, this patient was treated with colchicine 1 mg/day for 6 months and The hyperpigmented areas showed a significant improvement.[7] To our knowledge, in a literature review of pediatric LPP our case is the first cited. Nevertheless, our positive experience could turn out to be a new effective treatment for it, but long-term clinical studies could be necessary.

CONCLUSION

LPP is an uncommon but important variant of lichen planus in children. In the presence of dark hyperpigmentation of the skin, a biopsy can help identify LPP. His treatment is often fail to provide satisfactory results as there is no noticeable improvement and frequent reoccurrences.

this case highlights the importance of considering colchicine as a possible treatment option for pediatric patients with lichen pigmentosus. However, further studies with larger sample sizes and longer follow-up periods are needed to establish the safety and long-term effectiveness of this treatment approach.

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