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Is Azithromycin a New Treatment Option for Acute Varioliform Lichenoid Pityriasis?

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Abstract **Case Report**

Pityriasis lichenoides is a rare inflammatory skin condition with acute (PLEVA) and chronic (PLC) variants. There is no standardized treatment, though antibiotics like erythromycin and tetracycline have shown efficacy. This case report describes an 8-year-old with acute varioliform pityriasis lichenoides successfully treated with azithromycin and an H2 antihistamine. The skin lesions resolved within two weeks, leaving transient hyperpigmentation, with no recurrence after two years. Azithromycin's anti-inflammatory and immunomodulatory properties, combined with favorable pharmacokinetics and tolerability, suggest it as a promising alternative therapy for PLEVA.

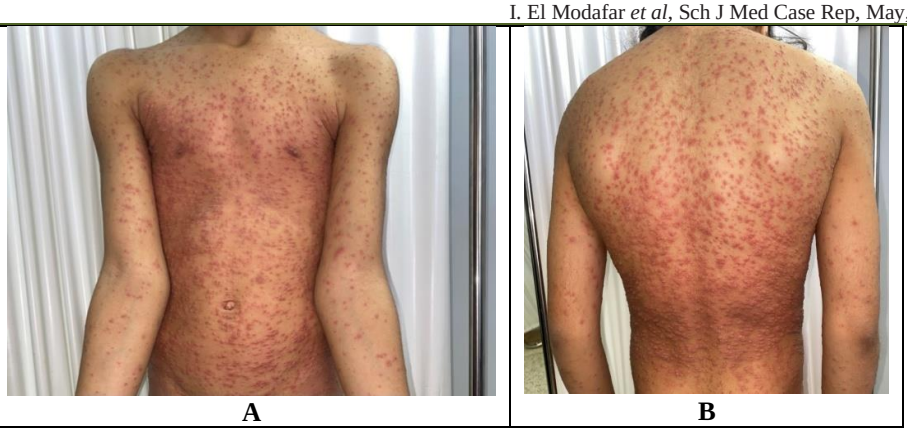
Keywords: pityriasis lichenoides, azithromycin, PLEVA, pediatric dermatology, rare skin disease, inflammatory dermatosis.

INTRODUCTION

Pityriasis lichenoides is a spectrum of rare inflammatory dermatoses of unknown etiology, composed of chronic pityriasis lichenoides (PLC) and acute varioliform pityriasis lichenoides (PLEVA) as main variants, with intermediate forms [1]. There is no therapeutic consensus for this condition, treatment options are based on case series or case reports and include local corticosteroid therapy, antibiotics and phototherapy. Reported use of antibiotics has been limited to tetracycline and erythromycin. We report the case of acute varioliform pityriasis lichenoides in a child that resolved rapidly under treatment with azithromycin.

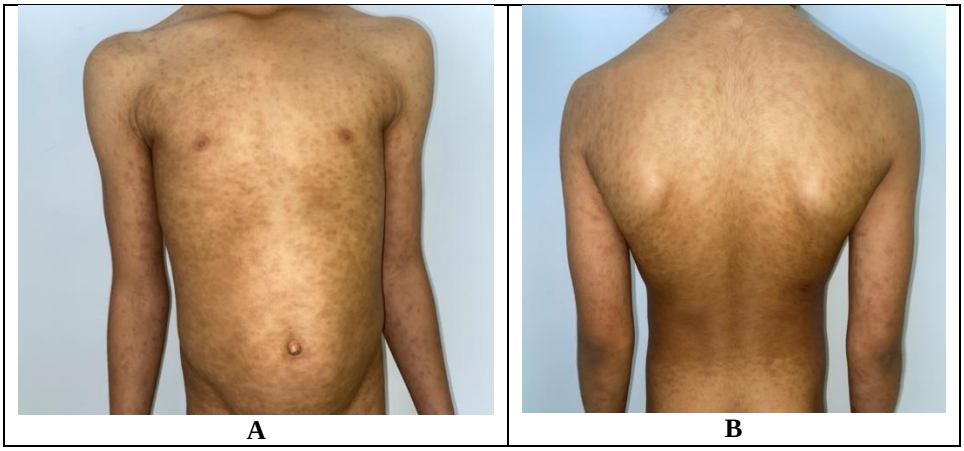
CASE REPORT

8-year-old patient with no particular pathological history, in particular no notion of drug intake, who presented for the sudden onset of generalized pruritic papules, more pronounced on the trunk, evolving in a context of fever at 38°C (Figure 1A, 1B). The histological examination revealed an acanthotic epidermis with moderate to severe spongiosis, vacuolar degeneration of the basal layer, and moderate exocytosis of lymphocytes and intraepidermal erythrocytes. The dermis was edematous, with a predominantly lymphocytic inflammatory infiltrate, accompanied by eosinophils, mainly arranged in a perivascular distribution. The diagnosis of acute varioliform pityriasis lichenoides was retained in view of the clinical and histological appearance. The patient was treated with azithromycin at a dose of 10mg/kg/d for 3 days a week for 4 weeks and an H2 antihistamine. The evolution was characterized by the resolution of inflammatory lesions, leaving behind hyperpigmented macules within two weeks of treatment (Figure 2A, 2B). The hyperpigmentation improved after two months, with no recurrence observed after two years (Figure 3A, 3B).



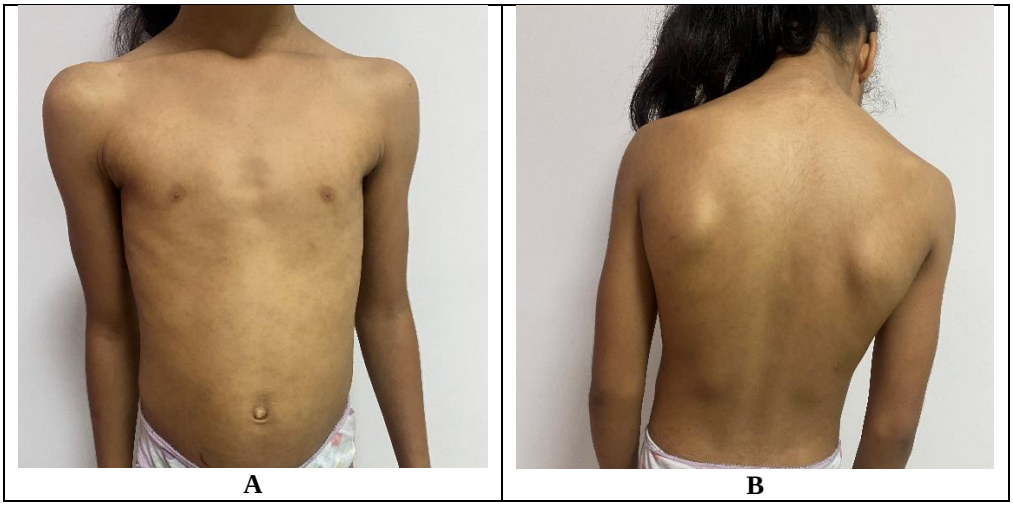
A **B**

Figure 1



A **B**

Figure 2



A **B**

Figure 3

DISCUSSION

Pityriasis lichenoides (PL) is a rare inflammatory dermatosis that preferentially affects children and young adults, evolving by spontaneously regressive flare-ups on the trunk and limbs. A distinction is made between the acute varioliform and necrotic form, a chronic papulosquamous form and a leucomelanodermic form which can occur immediately or succeed the two previous forms [1]. PLEVA has been confused with other dermatoses, some relatively benign as chickenpox and others potentially malignant like cutaneous T cell lymphoma [2].

The etiopathogenesis of this condition is not clearly elucidated, several authors have mentioned hypersensitivity to an infectious agent [3], which has led to the use of antibiotics such as erythromycin and tetracyclines, with good results due to their anti-inflammatory properties [4, 5]. Azithromycin as a treatment for pityriasis lichenoide has been reported in 4

publications [6-9], in which all patients with PLEVA or PLC evolved well under treatment without recurrence. The favorable response to azithromycin might be due to its anti-inflammatory and immunomodulatory effects by decreasing levels of cytokines and acute phase reactants. Furthermore, azithromycin has better bioavailability, longer half-life and fewer adverse effects compared to erythromycin [10]. Other treatment options include UVB phototherapy, corticosteroids and immunosuppressive agents such as Methotrexate in refractory or severe cases. The excellent response of this disease to azithromycin, its ease of administration and its good tolerance support its role as an alternative treatment modality for PLEVA. More studies are needed to fully elucidate the benefit of this antibiotic in this enigmatic dermatosis.

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