Is mycophenolate mofetil a new treatment for pityriasis lichenoides? A case report

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Pityriasis lichenoides is an uncommon, acquired, papulosquamous disorder that exhibits various clinical presentations, including acute, chronic, and febrile ulceronecrotic Mucha-Habermann forms.

Pityriasis lichenoides chronica (PLC) is the chronic form of this continuum. Its treatment is challenging for patients and clinicians and some cases are multidrug resistant. Today, this disorder has many treatment choices, including topical corticosteroids, topical calcineurin inhibitors, phototherapy (ultraviolet (UV) A and narrow band UVB), methotrexate, dapsone, cyclosporine and recently etanercept.

In our experience, mycophenolate mofetil was effective as a new treatment for pityriasis lichenoides.

Keywords: pityriasis lichenoides, mycophenolate mofetil, treatment

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INTRODUCTION

Pityriasis lichenoides is an uncommon, acquired, papulosquamous, clonal T cell disorder that has three clinical subtypes, including acute, chronic, and febrile ulceronecrotic Mucha-Haberman forms. There are multiple treatment choices for this disease but none of them are curative and its high recurrence rate is a problem. Mycophenolate mofetil inhibits the lymphocyte function and is an effective treatment in some dermatologic diseases, like those with T lymphocytes infiltration such as lichen planus. Considering the fact that T lymphocytes have a pathologic role in pityriasis lichenoides too, we hypothesized PLC might respond to mycophenolate mofetil [1,2].

CASE REPORT

A 25-year-old woman presented with multiple erythematous papules and micaceous scales that some of them were crusted. Lesions were located predominantly on the extremities but involved the trunk, as well (Figure 1).

On the first patient's admission to our outpatient dermatology clinic, a skin biopsy was performed which was interpreted in favor of pityriasis lichenoides (Figure 2). The patient took complete courses of topical corticosteroids and oral doxycycline but responded to none of them.

Considering the reproductive age of patient, we did not prescribe more toxic drugs such as methotrexate and cyclosporine; moreover, the patient lived far from any phototherapy center, so it was not an appropriate treatment for her.

We started mycophenolate mofetil at a dose of 500 mg twice daily and increased the dose to 1.5 g mycophenolate mofetil twice daily after 3 weeks.

After 8 weeks of treatment, the patient had no active lesions; only some post inflammatory hyperpigmentation macules were present and she was successfully treated. She did not have any

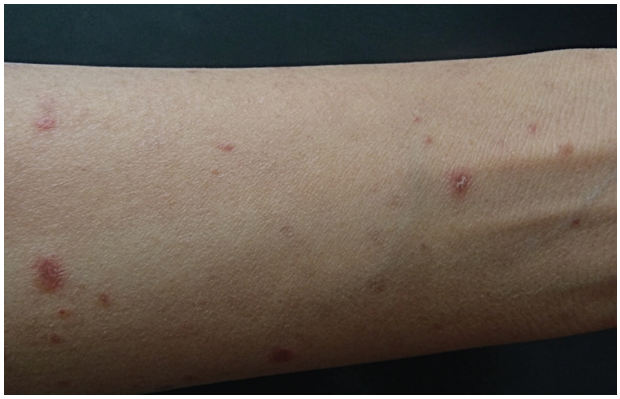

Figure 1. Multiple erythematous papules with micaceous scales on the upper extremity of a young woman before treatment.

Figure 3. The same patient after 8 weeks of treatment with mycophenolate mofetil.

clinical side effects of mycophenolate mofetil and all clinical laboratory data were normal (Figure 3).

DISCUSSION

Pityriasis lichenoides represents a unique group of inflammatory skin disorders and includes pityriasis lichenoides et varioliformis acuta (PLEVA) (acute form), pityriasis lichenoides chronica (chronic form) and febrile ulceronecrotic Mucha-Habermann (a fulminant subtype of the acute form). These are papular, clonal T cell disorders that may rarely be associated with mycosis fungoides [2].

These disorders have an unknown etiology and a chronic relapsing course so treatment is challenging. Many drugs have been introduced as treatment choices such as topical corticosteroids, topical calcineurin inhibitors, phototherapy (UVA and narrowband UVB), methotrexate, dapsone, cyclosporine and recently etanercept but none of these drugs has complete curability and disease relapse may occur after drug tapering [2-4].

Mycophenolate mofetil is one of the most frequently prescribed immunosuppressants in dermatology. It prevents conversion of inosine and xanthine 5 phosphate to guanosine 5 phosphate by inhibiting inosine monophosphate dehydrogenase enzyme, and subsequently inhibits guanine nucleotide synthesis followed by DNA synthesis in cells that lack a purine salvage pathway and are dependent on de novo purine synthesis such as T and B lymphocytes [5].

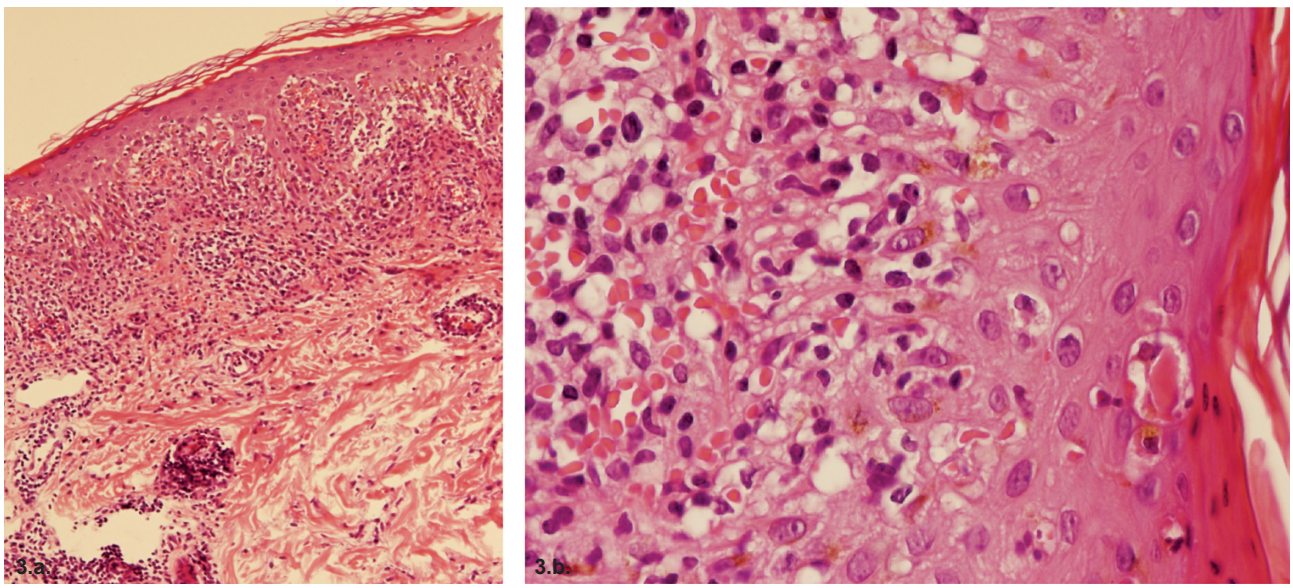

Figure 2. Interface dermatitis with high apoptotic keratinocytes, perivascular dense lymphocytic infiltrate, and severe exrtavasation of red blood cells (H&E, ×100) (**3.a.**) and (H&E, ×400) (**3.b**).

PLC contains lesional T cell (predominantly CD 4+) infiltrates, so mycophenolate mofetil can inhibit these cells and may have therapeutic effects on PLC as we experienced in this case.

We could not find any reports of the use of mycophenolate mofetil as a treatment option for pityriasis lichenoides, so this experience may be the first step of further studies. We suggest randomized clinical trials to approve mycophenolate mofetil as a new drug in pityriasis lichenoides.

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