# Cyclosporine Treatment in Lichen Planus

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## SUMMARY

We have treated three patients with severe lichen planus of different clinical types with Cyclosporine (Sandimmun, Sandoz) in a dose of 2.5mg/kg/day for six weeks. Complete remission was achieved in all three patients by the end of the six weeks period. There was no change in the liver or renal functions, nor in blood pressure in any of the patients. These results indicate that Cyclosporine is an effective and safe treatment in severe Lichen Planus.

#### Introduction

Lichen planus (LP) is worldwide in distribution with no racial predisposition, although there is a considerable variation in its incidence. At Mafraq Hospital (Abu Dhabi, UAE) 0.95% of all new dermatological cases were lichen planus as reported recently.<sup>1</sup>

Cyclosporine (Sandimmun) has become a plausible first line therapy in many autoimmune diseases including those with dermatological manifestations such as psoriasis, Behcet's disease and epidermolysis bullosa acquisita.<sup>2,3,4</sup>

At our centre, we have achieved complete remissions in severe cases of psoriasis with low doses of Sandimmune (2.5mg/kg/day). With such positive results we have expanded the use of Sandimmune to the treatment of severe cases of licen planus.

Here, we report the results of treatment of three cases with severe lichen planus treated

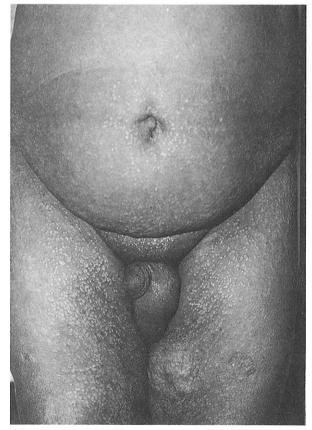


Fig. 1A: Case 1 with severe generalized lichen planus of the classic type before treatment.

with low doses of Sandimmune (2.5mg/kg/day).

# Material and Methods

Three patients entered this study with the following clinical features:

Case 1: A 43-year-old male patient with severe generalized lichen planus of the classic type (Fig. 1A).



*Fig.* **2A**: Case 2 with severe erosive lichen planus of the oral mucous membrane before treatment.



*Fig.* 3A: Case 3 with severe generalized lichen planus with vesiculo-bullous lesions on hands and feet before treatment.

Case 2: A 55-year-old male patient with severe erosive lichen planus of the oral mucous membrane (Fig. 2A).

Case 3: A 39-year-old male patient with severe generalized lichen planus with vesiculobullous lesions on hands and feet (Fig. 3A).

A skin biopsy was taken from each patient and the clinical diagnosis was confirmed histopathologically.

The patients were selected according to the severity of the disease and to the Sandoz exclusion criteria used in Psoriasis.

Sandimmun was given to the three patients in a dose of 2.5mg/kg/day (soft gelatin capsules given twice daily) for six weeks.

The weight, blood pressure, liver function tests and serum creatinine levels were determined for each patient prior to the start of medication and on weekly basis.

### Results

At the end of the six-week period, all the lesions cleared except for post inflammatory hyper pigmentation (figs. 1B, 2B, 3B).

There was no change in the level of liver function enzymes, serum creatinine, urea, or in the blood pressure in any of the patients.

#### Discussion

We report a rapid and successful treatment of three adult male patients with severe and extensive lichen planus of different clinical features using low doses of Sandimmun (2.5mg/kg/day). All the patients had active disease with recent onset at the time when Sandimmun was started. None of them had received any other systemic or topical treatment.

Significant improvement was detected in two weeks time in all the patients, and complete resolution of the lesions was achieved after six weeks. No relevant change in the blood pressure, blood creatinine, serum electrolytes, liver function tests, as well as blood count was detected in any of our patients.

Our results are similar to those reported in the literature but were achieved with less than

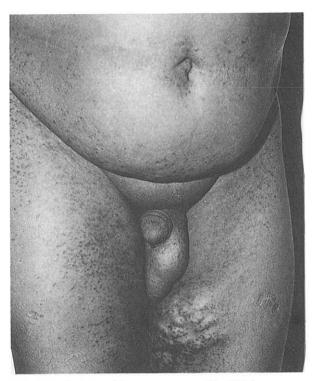


Fig. 1B: Case 1 with severe generalized lichen planus of the classic type after treatment.

half the dose.<sup>5,6</sup>

The mechanism by which Sandimmun improves lichen planus is unknown. It inhibits the production and/or the release of interleukin 1 from monocytes, and interleukin 2 from helper/inducer T-cells. Proliferation and function of helper/inducer T-cells are selectively inhibited. Because helper/inducer T-cells presumably play an important role in the pathogenesis of lichen planus, their inhibition by Sandimmun may explain the drug's therapeutic action. <sup>5,6</sup>

In conclusion, our study indicates that low dose of Cyclosporine is safe and effective for treatment of severe lichen planus especially when the disease is refractory to conventional treatments or when the latter are contraindicated.

## References

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*Fig.* **2B**: Case 2 with severe erosive lichen planus of the oral mucous membrane after treatment.



*Fig.* **3B:** Case 3 with severe generalized lichen planus with vesiculo-bullous lesions on hands and feet after treatment.

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