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CASE AND RESEARCH LETTERS

Ulcerative Lichen Planus of the Sole Treated With Tacrolimus, 0.1%

Liquen erosivo plantar tratado con tacrolimus 0,1%

To the Editor:

Ulcerative lichen planus of the sole is a rare variant of lichen planus, characterized by very painful ulcers located mainly in pressure areas.

There are 8 clinical entities, 4 affecting the mucosas and 4 affecting the skin. Those affecting the skin are lichen planus of the flexor surfaces, lichen planus of the scalp, ulcerative lichen planus of the sole, and linear immunoglobulin A disease masquerading as lichen planus.¹

Clinical manifestations include the presence of chronic, disabling ulcers, blisters, erosions, and erythema, possibly accompanied by nail lesions in the form of nail dystrophy or total nail loss, and also by hair loss. This disorder is frequently associated with other systemic diseases such as diabetes, chronic liver disease, Sjögren syndrome, primary biliary cirrhosis, or Hashimoto thyroiditis.²

We report the case of a 75-year-old woman with a past history of systemic hypertension, type 2 diabetes mellitus, and lacunar strokes. She had been diagnosed with lichen planus 15 years earlier in our department after developing small, oval-shaped macular-papular lesions on the wrists, forearms, axillas, and back, and a pigmented macule in the mouth. On this occasion, the patient was referred by the diabetic foot unit due to the presence of an ulcer on the sole of the right foot; the ulcer had developed 3 years earlier and had failed to respond to standard treatments. Examination revealed an ulcer on the right sole and heel, measuring just over 20 cm in diameter, with granulation tissue and non-elevated borders (Figure 1A). There were also brownish macules with a lichenoid appearance in the lumbar region. Microbiological cultures of the lesion were performed, with growth of nonspecific mixed flora. Biopsy revealed necrosis of the epidermis and a band-like infiltrate of lichenoid appearance, with numerous plasma cells and bacterial colonies (Figure 2).

The patient was diagnosed with ulcerative lichen planus of the sole, and tacrolimus 0.1% cream was prescribed for application once daily. There was a clear improvement when the patient attended follow-up 2 months later, and the tacrolimus application was increased to twice daily. The ulcer had almost completely epithelialized after 6 months (Figure 1B).

Ulcerative lichen planus is a rare variant of lichen planus, characterized by very painful ulcers located mainly in pressure areas, and by a chronic and disabling course. In any ulcerative lesion of the sole, dermatological examination of the whole body should be conducted to seek other signs of lichen planus, and skin biopsy should be performed to establish the definitive diagnosis.

Treatment of ulcerative lichen planus is often a challenge for dermatologists, as the lesions fail to respond to most of the topical and systemic treatments used to date. The main treatments are as follows: a) topical corticosteroids, which are not very effective, and intralesional corticosteroids, which are effective but can cause atrophy and thus interfere with epithelialization; b) dapsone³; c) ultraviolet-A1 phototherapy⁴; d) topical ciclosporin,^{5,6} which is effective for painful mucosal or skin lesions as presented by patients with ulcerative lichen planus; e) skin grafting⁷ for cases that fail to respond to less aggressive treatments, and also as a way of avoiding deformities and the development of spindle-cell carcinomas; and f) topical tacrolimus, which has been successfully used to treat ulcerative lichen planus affecting the oral mucosa.⁸ However, there is little experience with the use of tacrolimus applied to ulcerative lichen planus of the sole. In the cases reported in the literature improvement became evident after 4 weeks of treatment^{9,10}; our patient required treatment over a longer period, although slow improvement may have been related to the fact that she had had the lesion for 3 years. Tacrolimus acts through an inhibition of the transcription of certain cytokines, of T-cell proliferation and mast-cell degranulation; it also inhibits other proinflammatory substances such as interferon- γ and tumor necrosis factor.¹¹

In conclusion, we have found topical tacrolimus to be a safe and effective treatment option for ulcerative lichen planus affecting the soles of the feet.



Figure 1 A, Ulcer on the right heel. B, Response after 6 months of treatment with topical tacrolimus applied twice daily.

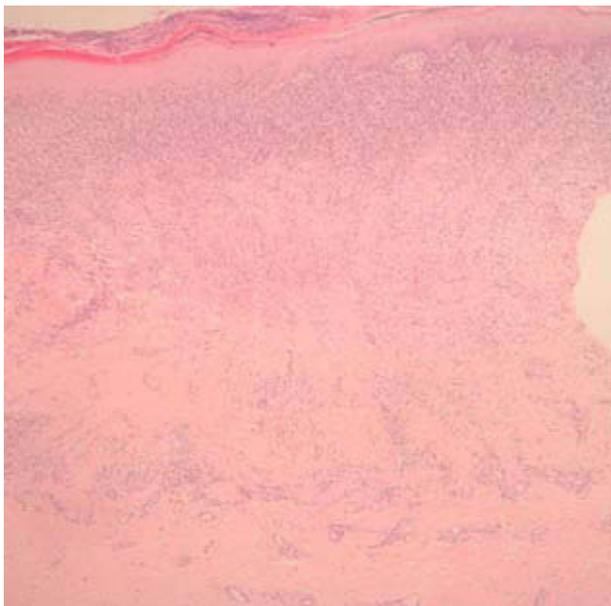


Figure 2 Epidermal atrophy, band-like lichenoid infiltrate, and plasma cells (hematoxylin-eosin, original magnification, $\times 40$).

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T. Ojeda,* E. Rodríguez-Pey, F.M. Camacho

Servicio de Dermatología, Hospital Universitario Virgen Macarena, Sevilla, Spain

*Corresponding author.

E-mail address: tere328@hotmail.com, camachodp@medynet.com (T. Ojeda).