CASE REPORT

Palmoplantar lichen planus successfully treated with acitretin

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Accepted 24 August 2015

SUMMARY

Palmoplantar lichen planus (PPL) is an uncommon type of lichen planus (LP) that exclusively affects the palms and soles. We report a case of a 50-year-old man who had palmoplantar hyperkeratotic papules and plaques. The patient was diagnosed as a case of PPL by skin biopsy, and treated with acitretin. He showed a good response to acitretin within 2 months. Clinical appearance and some features of PPL may differ from classic LP. Acitretin may be a favourable treatment option for PPL.

BACKGROUND

We report a case of a 50-year-old man with palmoplantar lichen planus (PPL) who showed a good response to acitretin. One should keep in mind that lichen planus (LP) may involve palmoplantar areas, with atypical appearance as PPL, and may show a favourable response to acitretin treatment.

CASE PRESENTATION

A 50-year-old man presented with an itchy rash that had started on his soles 1 year earlier and spread to both his palms and wrists in the last 3 months. He stated that he had used topical steroid creams for these lesions, but without significant improvement. On dermatological examination, there were slightly erythematous, hyperkeratotic papules and plaques on both palms and soles, and vertical ridging and pitting on the fingernails (figure 1A–C). The scalp, genital area and oral mucosa were not affected. Systemic examination was normal. Laboratory tests including venereal disease research laboratory test, hepatitis B surface

antigen (HBsAg), and anti-HBs and antihepatitis C virus antibodies, were negative. A punch biopsy was taken from the lesion on the right palm. Histopathological findings revealed hyperkeratosis, irregular acanthosis, prominent granular cell layer, degeneration of the basal layer of the epidermis and a band-like lymphocytic infiltrate in the upper dermis (figure 1D).

OUTCOME AND FOLLOW-UP

The patient was diagnosed with PLP based on clinical and histopathological findings. Oral acitretin 35 mg/day (0.5 mg/kg body weight) (Neotigason, Actavis) was started. After 2 months, the lesions completely disappeared (figure 1E–G).

DISCUSSION

LP is a chronic inflammatory skin disease that, besides affecting skin, can also affect nail and mucosa. It is most commonly localised on the arms, legs, wrists and genital area. PLP is an uncommon type of LP that exclusively affects the palms and soles.^{1 2} The diagnosis of PPL may be challenging, even for dermatologists, in cases lacking accompanying classic LP lesions on typical predilection areas of LP. If PPL is not kept in the differential diagnosis, it may easily be mistaken for diseases that involve palmoplantar areas, such as palmoplantar psoriasis, dyshidrotic eczema, lichen nitidus, secondary syphilis and tinea.^{2–4} Owing to its localisation, the clinical appearance and some features of PPL may differ from classic LP. In PLP, there is no polygonal appearance or Wickham's striae on the lesions.¹ Although it has been reported that the lesions mainly appear as erythematous-scaly or

Figure 1 (A–C) Slightly erythematous, hyperkeratotic papules and plaques on both palms and soles. (D) Histology section showing epithelial hyperparakeratosis, irregular acanthosis and basement layer lichenification; also present is a layered marked lymphocyte infiltrate immediately underlying the epithelium (H&E ×200). (E–G) The appearance of the palms and soles after treatment.

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To cite: Solak B, Kara RO, Kosem M. *BMJ Case Rep* Published online: [please include Day Month Year] doi:10.1136/bcr-2015-211115

hyperkeratotic patterns, they may take various other forms such as vesicular, petechia-like, umbilicated papules and ulcerative.^{1 3–6} The lesions are usually itchy, as in classic LP.² Histopathological examination can be helpful for diagnosis. Histopathological findings of PPL reveal classical LP changes.^{1 5}

Topical corticosteroids, systemic corticosteroids, acitretin, cyclosporin, methotrexate and enoxaparin have been used to treat PPL.^{3 5 7–9} Acitretin has been used for several dermatological disorders such as psoriasis, Darier's disease and palmo-plantar keratodermas, as well as for lichen planus, owing to its antiproliferative effects.⁸ There are a few studies in the literature regarding the use of acitretin for PPL, which showed generally favourable effect.^{8 10 11} Nevertheless, Rieder *et al*⁵ reported a case of PPL that, although unresponsive to acitretin, responded well to methotrexate.

Learning points

- ▶ Clinical appearance and some features of palmo-plantar lichen planus (PLP) may differ from classic lichen planus (LP).
- ▶ There is no polygonal appearance or Wickham's striae on PLP lesions.
- ▶ The lesions mainly appear as erythematous-scaly or hyperkeratotic patterns, and they may take various other forms such as vesicular, petechia-like, umbilicated papules and ulcerative.
- ▶ Histopathological findings of PLP reveal classical LP changes.
- ▶ PLP may show a favourable response to acitretin treatment.

Contributors BS wrote the manuscript. ROK captured the images and performed the literature review. MK performed the histopathological examination.

Competing interests None declared.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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