

Palmoplantar *Lichen Planus* A diagnosis to keep in mind

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الحزاز المسطح في راحة اليد وباطن القدم
تشخيص يجب أخذه بعين الإعتبار

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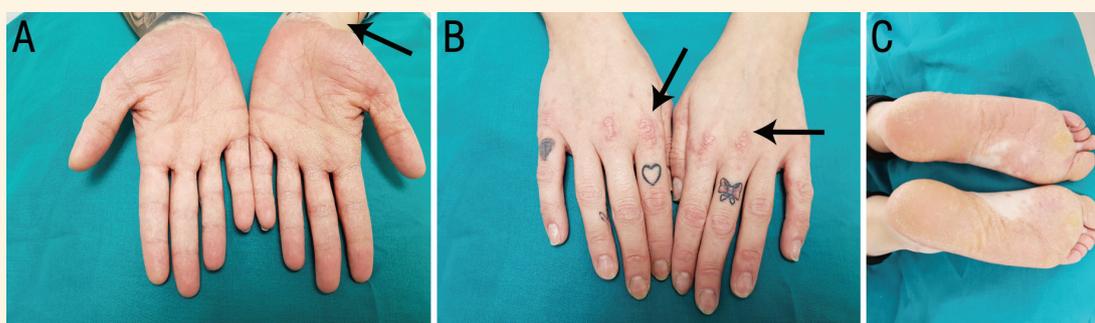


Figure 1: Photographs of the hands and feet of a 29-year-old female patient showing well-defined diffuse erythema (arrows) on both (A) palms and (B) *dorsum* sparing the fingertips and (C) well-defined erythematous patches sparing the plantar arch on both soles.

A 29-YEAR-OLD CAUCASIAN FEMALE PATIENT was referred to the Dermatology Outpatient Clinic of Hospital Universitario San Cecilio, Granada, Spain in 2018 with a pruriginous palmoplantar eruption over the previous five months that had not improved with the application of high-potency topical corticosteroids. She had no personal or family history of skin diseases. Recently, she denied the use of any medications.

Dermatological examination revealed the presence of a well-defined diffuse erythema on the palm of the hands that spared the fingertips and bilateral violaceous polygonal papules on the *dorsum* aspect of the hands [Figures 1A & B]. On the soles of her feet, well-defined erythematous patches sparing the plantar arch were observed [Figure 1C]. No involvement of other skin areas or mucosa was noted. Laboratory tests including complete blood count, general biochemistry, venereal research laboratory tests, hepatitis B and C and HIV serology showed normal results. In addition, an allergic contact dermatitis patch test was negative.

Histopathologic examination of a lesion on the *dorsum* of the right hand revealed orthokeratotic hyperkeratosis, irregular acanthosis, vacuolar degeneration of the

basal layer and band-like lymphocytic infiltration on the papillary dermis [Figure 2].

Therefore, the patient was diagnosed with palmoplantar *lichen planus* (PPLP). Treatment with isotretinoin was proposed at a dose of 0.5 mg/kg/day with a substantial improvement three months later. At present, the patient remains asymptomatic with periodic consultations. Psoralen and ultraviolet A (PUVA) therapy for localised disease was refused by the patient for her inability to attend due to work-related reasons.

Comment

PPLP is an uncommon entity of low prevalence on the clinical spectrum of *lichen planus* with an incidence rate of 12.9–26%.¹ This disease has a male predilection and the average age of onset of 38 years with a range of 9–72 years.²

The absence of the typical polygonal violaceous papules, which were found on the dorsal aspect of both hands of the current patient, is not unusual; on the palms, the fingertips are usually spared.^{3,4} In general, of localised *lichen planus* cases become generalised with

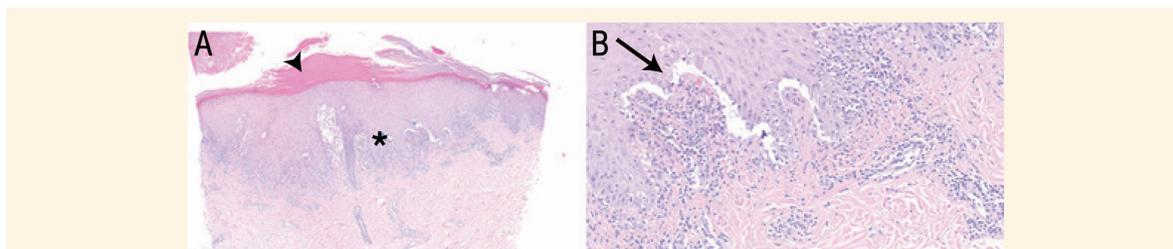


Figure 2: Haematoxylin and eosin stain at (A) x2 magnification showing orthokeratotic hyperkeratosis (arrowhead), irregular acanthosis and vacuolar degeneration of the basal layer (*) and at (B) x20 magnification showing the degeneration of the basal layer (arrow) and band-like lymphocytic infiltration on the papillary dermis.

the average time of evolution estimated to be between 1–4 months.⁵

Five clinical types of PPLP have been described, namely eczematous, lichenoid, punctate keratotic, ulcerative and psoriasiform, which is the most frequent.¹ There are isolated cases that have described the presence of vesicles, *petechiae* or umbilicated papules.⁴ Histopathological studies are crucial to diagnose PPLP. The pathological characteristics of PPLP are shared with those of classic *lichen planus*. The thickness of the *stratum lucidum* of palms and soles has its clinical meaning in the absence of the characteristic Wickham's *striae*.⁵ Differential diagnosis should include psoriasis, hyperkeratotic eczema, diffuse keratoderma, keratosis *punctata*, *lichen nitidus*, granuloma annulare and secondary syphilis among others.⁴

A variable response to treatments, including retinoids, PUVA therapy, corticosteroids, methotrexate, cyclosporine and enoxaparin sodium, has been reported.^{4–6} It is necessary to establish a therapeutic protocol that assesses the risks and benefits of each patient.

References

1. Sinha S, Sarkar R, Garg VK. Palmoplantar lesions of lichen planus. *Indian J Dermatol* 2018; 63:57–61. https://doi.org/10.4103/ijd.IJD_161_17.
2. Gutte R, Khopkar U. Predominant palmoplantar lichen planus: A diagnostic challenge. *Indian J Dermatol* 2014; 59:343–7. <https://doi.org/10.4103/0019-5154.135477>.
3. Burillo-Martínez S, Tous-Romero F, Rodríguez-Peralto JL, Postigo-Llorente C. Palmoplantar lichen planus: The spectrum of clinical manifestations in a single patient. *Actas Dermosifiliogr* 2017; 108:790–2. <https://doi.org/10.1016/j.ad.2017.01.019>.
4. Solak B, Kara RO, Kosem M. Palmoplantar lichen planus successfully treated with acitretin. *BMJ Case Rep* 2015; 2015:bcr-2015211115. <https://doi.org/10.1136/bcr-2015-211115>.
5. Kim MJ, Choi M, Na SY, Lee JH, Cho S. Two cases of palmoplantar lichen planus with various clinical features. *J Dermatol* 2010; 37:985–9. <https://doi.org/10.1111/j.1346-8138.2010.00936.x>.
6. Rieder E, Hale CS, Meehan SA, Leger M. Palmoplantar lichen planus. *Dermatol Online J* 2014; 20:13030/qt1vn9s55z.