LETTER TO EDITOR
Year: 2019 • Volume: 2 • Issue: 1 • Page: 15-17

UNILATERAL HYPERTROPHIC LICHEN PLANUS ON SOLE- A RARE CASE REPORT

Anand Sharma[1], Manmohan[1], Shivi Nijhawan[1], Subhash Bishnoi[1], Manisha Nijhawan[1], Savita Agarwal[1]
[1]Department of Dermatology, Mahatma Gandhi Medical College & Hospital, Jaipur.
Corresponding Author:
Dr. Anand Sharma
PG Resident, Department of Dermatology, Mahatma Gandhi Medical College & Hospital, Jaipur.
Email: anandsharma32866@gmail.com

Sir,

Lichen planus (LP) is a common papulosquamous inflammatory dermatosis that can affect the skin, mucous membranes, hair and nails. Lichen planus is classically characterized by violaceous, scaly, flat-topped, polygonal papules to plaques and commonly involves the flexor aspects of the wrists, legs, oral and genital mucous membranes.[1,2]

Lichen planus has many morphological variants among which hypertrophic lichen planus is one of the type. It is an extremely pruritic form of LP and is characterized by presence of hyperkeratotic plaques which are usually seen over the shin and ankles. We are reporting a case of unilateral hypertrophic lichen planus in a patient who presented with mildly itchy hypertrophic plaque over right sole since past 6 years sparing other sites which is very unusual in presentation.

A 18 year old patient , student by profession presented with chief complaint of single raised lesion over right sole associated with mild itching since last 6 year. It started as a small asymptomatic pea sized lesion which gradually increased in size and developed mild itching over past 3 year. There is no history of pain or discharge from the lesion. There was no history of any palmer, scalp, oral or genital lesions.

There was no history of fever, weight loss, cough or joint pain. Personal or family history of atopy was absent. History of trauma, or any chronic illness were absent.

His general physical and systemic examination were normal. On cutaneous examination a single well defined erythematous plaque of size 5 X 4 cm with white firm scaling was present over the plantar aspect of right forefoot (Figure 1). Lesion was non tender and does not discharge or bleed on manipulation. Other body sites were spared. Oral mucosa , genital mucosa, nails and scalp examination were normal.

With this clinical feature we kept our differential as plantar psoriasis, hypertrophic lichen planus, tinea pedis, cutaneous tuberculosis and chromoblastomycosis.

Routine blood investigation including complete blood counts, renal function tests, liver function tests and thyroid profile were normal. Mantoux test was negative. Skin scrapping for KOH and fungal culture were negative. Tissue stain like PAS for fungus and AFB for TB were negative. X-ray chest did not revealed any abnormality.

Skin biopsy showed epidermal hyperplasia with foci of spongiosis and parakeratosis. There was moderately patchy perivascular & periappendigeal infiltrate of lymphocytes, plasma cells and histiocytes with occasional epitheloid cells .The reticular dermis showed an increased number of thick walled capillaries. Collagen bundles in papillary as well as reticular dermis showed thickening and haphazard arrangement. These findings were consistent with hypertrophic lichen planus.

On the basis of clinical feature and histopathological examination a diagnosis of hypertrophic LP was made and patient was started with oral and topical steroid. A significant improvement was seen within 3 weeks of treatment and dose of oral steroid was gradually tapered. Lesion healed completely in 3 months and patient is still under follow up without any reccurence for past 1 year.

The term 'LICHEN PLANUS' was coined by Erasmus Wilson in 1869.[3] Lichen planus is an chronic inflammatory dermatosis which produces a characterstic polygonal, violaceous pruritic papule and plaque with fine white reticulate streaks on its surface known as wickhams striae.[4] Incidence of LP varies from 0.1 % to 4 % depending upon the population studied.[5,6] In India different studies have reported that the incidence among dermatology outpatients is 0.38% to 1.4%.[7,8,9] It is commonly observed in patients of age group 31-40 years with minor

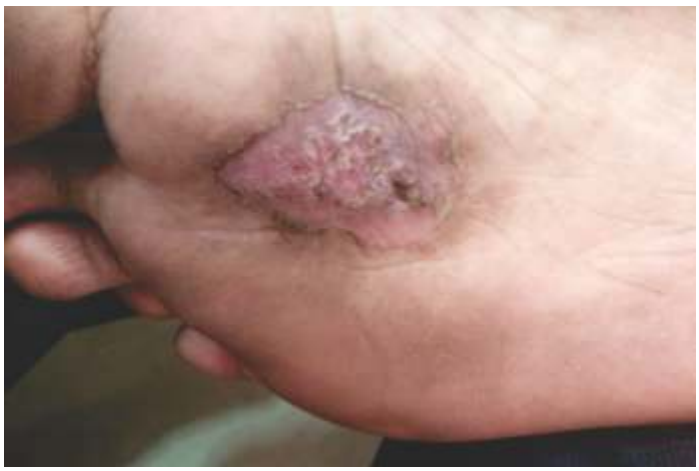

Figure 1: Erythematous plaque with white firm scaling over plantar aspect of right forefoot

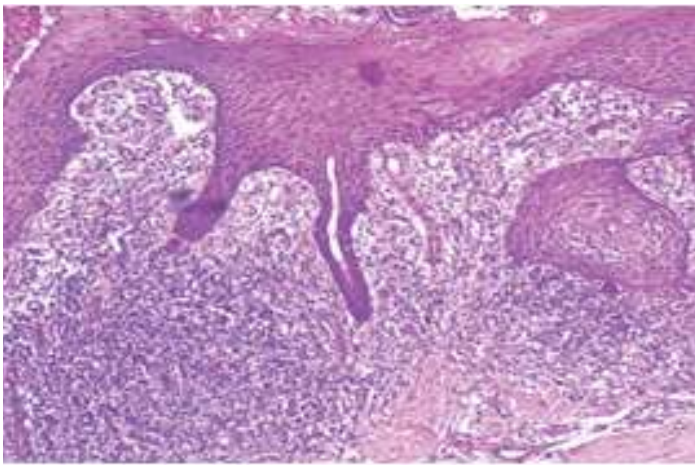

Figure 1: Epidermal hyperplasia with foci of spongiosis and parakeratosis

female predominance.[10,11]

Exact etiology of lichen planus is not known and multiple etiological factors have been associated with it. Genetic susceptibility plays a role especially in idiopathic LP. It is also supposed to be an immunological mediated disorder. Some cases of lichen planus are associated with autoimmune disease like myasthenia gravis , alopecia areata , lupus erythematosus whereas some are associated with infections like hepatitis B, hepatitis C and chronic active hepatitis.[12,13]

The lesions of classical LP involves flexural sites like arm, leg, trunk with sparing of face, scalp, palm & sole. Multiple morphological variants of lichen planus have been described like annular atrophic, bullous, erosive, hypertrophic, follicular etc.[14,15] Hypertrophic variant is severely itchy and commonly involves ankle and shin area.

Palmoplantar lichen planus is a rare localized variant of LP and usually lack the classical clinical morphology and becomes difficult to diagnosis sometime. In a study, palmoplantar LP together with accompanying skin involvement accounted for 26%.2 Classically palmoplantar LP present with pruritic well defined erythematous scaly or hyperkeratotic plaque followed by rare presentation of punctate keratoderma, diffuse keratoderma and ulcerated lesion.[16] In a study done by Sanchiz et-al the lesions of LP were more frequently present on soles than on the palm and common site of involvement is inner plantar arch. They also observed hyperkeratotic lesions in 25% patients.

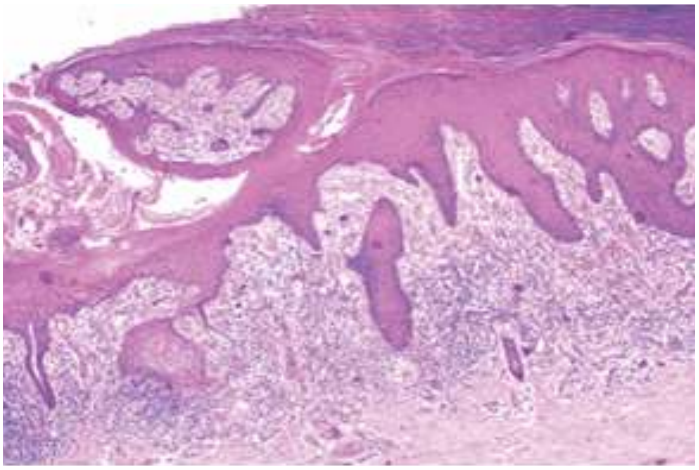

Figure 3: perivascular & periappendigeal infiltrate of lymphocytes, plasma cells and histiocytes with occasional epitheloid cells

In the current case the unilateral presentation of mildly itchy hyperkeratotic scaly lesion in planter area makes it very unique and interesting. As it lacks the classical presentation and wickham's striae, histopathology plays a significant role in confirming the diagnosis. Palmoplantar LP lesions usually heals spontaneously over a few months[17,18,19]. But in our case it lasted for 6 years without any improvement. Altman and Perry describe recurrence in 17% of patient, with an average duration of 8 months but in our case there was no recurrence during 1 year of follow up.[20]

The first line treatment of PPLP is topical or systemic corticosteroid. Other treatment modalities are topical tazarotene, oral cyclosporine, acitretin and phototherapy. The present case showed complete clearance with topical & oral steroids given for 3 months.

To conclude the PPLP is an uncommon variant and can present with clinical challenge to diagnose it early. We are reporting this case of unilateral hypertrophic lichen planus over sole because of its rarity.

How to cite this article:

Sharma A, Manmohan, Nijhawan S,Bishnoi S, Nijhawan M, Agarwal S. Unilateral Hypertrophic Lichen Planus on sole- a rare case report. JDA Indian Journal of Clinical Dermatology 2019;2:15-17.

References

1. Inamadar AC, Palit A. Lichen planus and lichenoid disorders. In: Valia RG, Valia AR (Eds).IADVL Textbook of dermatology. 3rd edition. Mumbai: Bhalani Publishing House; 2008. P. 1070-86.
2. Sanchez-Parez J, Buceta LR, Fraga J, Garcia-Diez A. Lichen planus with lesions on the palms and/or soles: prevalence nad clinicopathological study of 36 patients. Br J Dermatol. 2000;142:310-4.
3. Wilson E. On lichen planus. J Cutan Med Dis Skin. 1869;8:117-32.
4. Summan PD. Lichen planus: a dermatological centenary. Br J Dermatol. 1969;81:306-7.
5. Axell T, Occurrence of leukoplakia and some other oral white lesions among 20,333 adult Swedish people. Community Dent Oral Epidemiol. 1987;15:46-51.
6. Bhattacharya A, Kaur I, Kumar B. Lichen planus: a clinical and epidemiological study. J Dermatol. 2000;27:576-82.
7. Bhattacharya M, Kaur I, Kumar B. Lichen planus: a clinical and epidemiological study. J Dermatol. 2000;27:576-82.
8. Sehgal VN, Rege VL. Lichen planus: an appraisal of 147 cases. Indian J Dermatol Venereol Leprol. 1974;40:104-7.
9. Kachhawa D, Kachhawa V, Kalla G, Gupta LP. A Clinicoaetiological profile of 375 cases of lichen planus. Indian J Dermatol Venereol Leprol. 1995;61:276-9.
10. Manolsche L, Seceleanu-Petrescu D, Benea V, Manolache DV. Lichen planus patients and stressful events. J Eur Acad Dermatol Venereol. 2008;22:437-41.
11. Dreiher J, Shaprio J, Cohen AD. Lichen planus and dyslipidaemia: a

case-control study. Br J Dermatol. 2009;161:626-9

12. Seyhan M, Ozcan H, Sachin I, Bayram N, Karincaoglu Y. High prevalence of glucose metabolism disturbance in patients with lichen planus. Diabetes Res Clin Pract. 2007;77:198-202
13. Shaker O, Hassan AS> Possible role of interleukin-17 in the pathogenesis of lichen planus. Br J Dermatol. 2012;166:1357-80.
14. Pittelkow MR, Daoud MS. Lichen planus. In: Wolff K, Goldsmith LA, Katz SI, Gilchrest BA, Paller AS, Leffell DJ, editors. Fitzpatrick's dermatology in general medicine. 7th ed. New York: McGraw Hill; 2008. P. 244-56.
15. Breathnach SM. Lichen planus and lichenoid disorders. In: Rook's textbook of dermatology. In: Burns T, Breathmach S. Cox N, Griffiths C, editors. 8th ed. Oxford: Wiley Blackwell; 2010. P. 41.1-28.
16. Al-Khenaizan S, Al Mubarak L. Ulcerative lichen planus of the sole: excellent response to topical tacrolimus. Int J Dermatol. 2008 Jun;47(6):626 8.
17. Landis M, Bohyer C, Bahrami S, Brogan B. Palmoplantar lichen planus: A rare presentation of a common disease. J Dermatol Case Rep. 2008;2:8–10.
18. Kim MJ, Choi M, Na SY, Lee JH, Cho S. Two cases of palmoplantar lichen planus with various clinical features. J Dermatol. 2010;37:985–989.
19. Mehta V, Vasanth V, Balachandran C. Palmar involvement in lichen planus. Dermatol Online J. 2009;15:12–12.
20. Altman J, Perry HO. The variations and course of lichen planus. Arch Dermatol 1961;84:179-91.