# **Drawstring lichen planus: A unique case of Koebnerization**

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## **ABSTRACT**

Drawstring dermatitis is a type of frictional dermatitis that can result from a traditional tightly worn garments such as sari or salwaar-kameez. We report a 54-year-old female patient presented with lichen planus of the drawstring site that was confirmed histopathologically. This case is rare and demonstrates how sociocultural practices can influence the presentation of common dermatoses such as LP.

Key words: Drawstring, lichen planus, Koebnerization, Koebner phenomenon

# **INTRODUCTION**

Lichen planus (LP) is a chronic inflammatory and immune-mediated disease that affects the skin, nails, hair, and mucous membranes. <sup>[1]</sup> The development of a true Koebner phenomenon or the isomorphic response in LP is a well-established fact. <sup>[2]</sup> Rarely, linear papules may be the initial presentation of the disease, presumably reflecting Koebnerization into the sites of previous trauma or scratching. <sup>[3]</sup>

This report aims to demonstrate an uncommon clinical presentation of LP, with Koebner phenomenon, involving a rare site.

CASE REPORT

A 54-year-old female patient presented with the chief complaints of itchy raised lesions on the hip (at the site of friction by clothing, inner waist coat) for a period of two months. She did not have similar lesions elsewhere in the body, including the oral cavity. She did not take any drugs prior to the onset of these lesions. Her past history was insignificant.

On examination, well-defined violaceous polygonal flat-topped papules and plaques coalescing with one another were noted, arranged circumferentially from the hip to the lower back on both sides in an interrupted pattern [Figure 1]. Rest of the skin, mucosa, hair, and nails were normal.

Routine blood investigations were within normal limits. HIV, hepatitis B and C serology were negative. Skin biopsy of a well-defined papule [Figure 2] (H and E section) showed compact orthokeratosis, focal parakeratosis, wedge-shaped hypergranulosis, irregular acanthosis, vacuolar alteration of the basal layer in the epidermis, and a band-like lymphocytic infiltrate in the papillary dermis, suggestive of lichen planus. The patient was prescribed topical betamethasone diproprionate ointment and advised to wear the drawstring loosely.

## **DISCUSSION**

Drawstring dermatitis is a type of frictional dermatitis that can result from a traditional tightly worn garments such as the *sari* or the *salwaar-kameez*.<sup>[4]</sup> The resulting chronic friction may result in dermatoses such as lichenified grooves, postinflammatory depigmentation, or leukoderma. It may also

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Figure 1: Violaceous coalescing papules along the waist line.

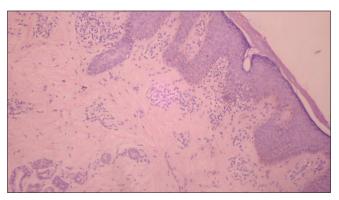


Figure 2: Low-power view showing lichenoid band of infiltrate with focal areas of basal cell vacuolation (H and E,  $\times 10$ )

result in Koebnerizaton of preexisting dermatoses such as vitiligo and LP. [5]

In our patient, the initial presentation of LP was at the site of friction due to drawstring. This Koebnerization due to drawstring is rare and only one case had been previously reported.<sup>[5]</sup>

The other interesting feature is that it was the initial presentation of LP in our patient. This case is unique and demonstrates how sociocultural practices can influence the presentation of common dermatoses such as LP.

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# **Conflicts of interest**

There are no conflicts of interest.

# **REFERENCES**

- Gorouhi F, Davari P, Fazel N. Cutaneous and mucosal lichen planus: A comprehensive review of clinical subtypes, risk factors, diagnosis, and prognosis. ScientificWorldJournal 2014;2014:742826.
- Thappa DM. The isomorphic phenomenon of Koebner. Indian J Dermatol Venereol Leprol 2004;70:187-9.
- Shiohara T, Kano Y. Lichen planus and lichenoid dermatoses. In: Bolognia J, Jorizzo J, Schaffer J, editors. Dermatology. 3<sup>rd</sup> ed. New York: Mosby; 2012. p. 183-5.
- Gupta D, Thappa DM. Dermatoses due to Indian cultural practices. Indian J Dermatol 2015;60:3-12.
- Verma SB. Dermatological signs in South Asian women induced by sari and petticoat drawstrings. Clin Exp Dermatol 2010;35:459-61.