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Case Report Open Access

Zosteriform Lichen Planus-A Rare Case Report

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Abstract

A 45-year-old lady presented with pruritic violaceous papules over a previously uninvolved skin, in the left T 6 to T 10 dermatome distribution. A diagnosis of zosteriform lichen planus was made based on the distribution pattern and skin biopsy. Although many case reports have proven that zosteriform lichen planus usually follows Herpes zoster infection in the same dermatome, a result of Wolf's isotopic response, this case differed from the rest in this aspect in being a rare *de novo* presentation of zosteriform lichen planus.

Keywords: Zosteriform; Lichen planus; *De novo* presentation

Introduction

Lichen planus (LP) is a self-limiting, papulosquamous disorder that affects the skin and mucous membrane along with the nails and scalp. The incidence ranges from 0.9%-1.2% of all new cases seen in Dermatology clinics [1]. Among the various types of LP, zosteriform variety is a very rare presentation with just about 10 cases published so far. The zosteriform arrangement of lichen planus is considered to be a cutaneous reaction probably triggered by an unknown neural factor [2]. The incidence of zosteriform LP is only 1.09% of all cases of LP [3].

Case Report

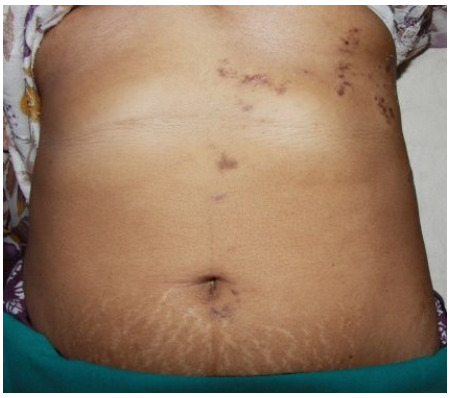

Figure 1: Lichen planus along the left T6 to T10 dermatomes.

A 45-year-old lady presented to the Dermatology OPD with complaints of raised pruritic violaceous lesions over left side of the trunk with gradual progression of lesions over the past 1 year. There was no history of fever or grouped vesicles on the affected area. She was not known to have diabetes, hypertension, thyroid disorders or atopic diathesis.

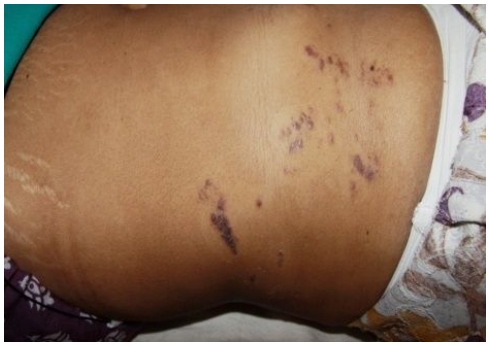

Figure 2: Lesions extending to the back in a dermatomal pattern.

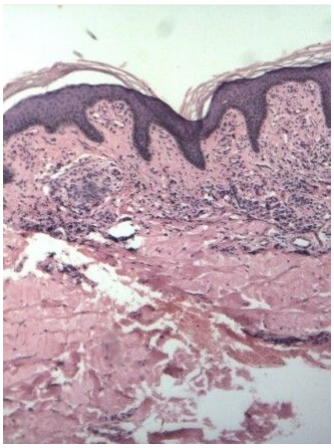

Figure 3: Haematoxyline and eosin 100X. A dense band of lymphocytic infiltrate seen in the upper dermis hugging the epidermis. Saw-toothing of rete ridges is also seen.

Complete general physical examination including examination of nails did not reveal any abnormality. Cutaneous examination revealed violaceous plane topped papules distributed in a dermatomal pattern along the left T 6 to T 10 segments. There was a sharp demarcation as the lesions did not cross the midline (Figures 1 and 2). There was no scar of herpes zoster. Routine investigations including a complete blood count and urine analysis were normal. A skin biopsy was done which showed moderate degree of irregular acanthosis, mild hyperkeratosis and focal hypergranulosis. A dense band of lymphocytic infiltrate was seen in upper dermis hugging the epidermis. There was extensive basal cell vacuolation and degeneration. The rete pegs were narrowed and elongated resulting in saw-toothed appearance. There was prominent pigment incontinence and the features were conclusive of lichen planus (Figures 3 and 4). In view of the characteristic clinical findings of unilateral dermatomal distribution of lichenoid papules with the biopsy report conclusive of lichen planus, a diagnosis of zosteriform lichen planus was made.

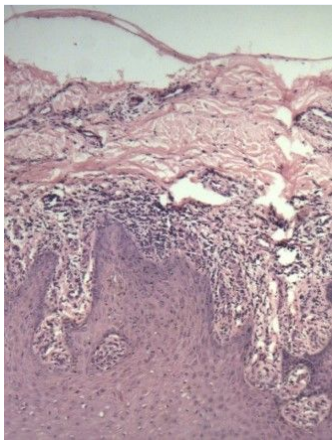

Figure 4: Haematoxyline and eosin 400X. Dense lymphocytic infiltrates seen in the upper dermis hugging the epidermis.

Discussion

The term lichen planus was coined by Erasmus in 1869, previously called as "Lichen ruber" by Hebra [4]. It presents as plane topped, pruritic, violaceous, and polygonal papules, commonly in the flexural areas of wrist, lumbar region and around ankles, commonly affecting those within the age group of 30-60 years. Lichen planus is usually immunologically mediated although viral, neurological and emotional stress has also been considered in the etiology. Mucous membranes are affected in upto 70% cases [1,2].

Lichen planus can have varied presentations. There are about 20 variants of LP, some of them being atrophic LP, lichen planopilaris, LP pigmentosus, annular LP, guttate LP [5]. Many atypical presentations of lichen planus are also seen as in actinic, vesicobullous, hypertrophic LP [2]. In very rare conditions there can be a linear, zosteriform or unilateral presentation. Linear LP needs to be differentiated from zosteriform LP. According to Davis et al., linear LP presents as itchy papules which appear as narrow lines (less than or equal to 1 or 2 cm in width), which may be along the course of a nerve, a vein or a lymphatic vessel or one of Voigt's lines [6]. In zosteriform LP, the papules form a band, several centimeters in width, that goes along the course of a peripheral cutaneous nerve and its branches or that appears over areas of radicular nerve distribution [6]. Zosteriform lichen planus has also been reported in association with 20 nail dystrophy where it appeared few months after the 20 nail dystrophy, and there was no previous history of herpes zoster over the site of zosteriform LP [7].

Dermatomal (Zosteriform) LP can arise as a result of Wolf's isotopic response [2]. Turan et al. reported zosteriform LP as an isomorphic response following extracorporeal shock wave lithotripsy, where the lesions were noted on the left T6 to T10 nerve segments where lithotripsy had been performed 2 weeks prior to the appearance of lesions [8].

It can arise without prior trauma or infection as well, which is extremely rare [1,2,7]. Vora et al. and Shamshiri et al. reported zosteriform LP in the thoracic region, and Miljković et al. described it over the L5-S1 segment [1,9,10]. Happle argued against true zosteriform LP saying it arose over the lines of Blaschko only but was named incorrectly. However, Lutz showed 2 cases of zosteriform LP arising *de novo* [2]. Some variants of lichen planus may not always have Blaschkoid distribution patterns, and even if they do, they can be mistaken as dermatomal.

Conclusion

Our patient presented with a rare variant of lichen planus i.e zosteriform LP with no preceeding history of trauma or herpes zoster lesions along the same dermatomes. This type of *de novo* presentation of zosteriform LP has not been reported much, especially in the Indian population. Knowledge of such a rare presentation of a common disease shall enable the treating doctor to make the right diagnosis, treat accordingly and allay the patient's anxiety.

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