

## MULTIPLE VARIANTS OF LICHEN PLANUS IN A SINGLE PATIENT: A RARE CASE REPORT

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### ABSTRACT

#### Background

Several variants of lichen planus have been described in literature but there have been notably few cases in which multiple variants of lichen planus in single patient had been described. Of the many morphological variants described, linear and zosteriform lichen planus are rare and unilateral lichen planus seems to be rarer. We report a case in which different variants i.e. oral, zosteriform, follicular & hypertrophic lichen planus exists in a single patient. Main observation. A 30 year old presented to our dermatology department with the chief complaints of itchy violaceous papules over face, chest, back and bilateral lower legs since 3 months. On examination hyperpigmented follicular prominence was present in lesions on back, zosteriform pattern was present in the lesions over chest and back, oral cavity showed white reticulate lacy pattern on buccal mucosa, hypertrophic plaques were present over dorsum of right foot and antero-lateral aspect of right lower leg. Biopsies from involved sites were consistent with features of lichen planus. Conclusion This is found to be one of rarest case in which various variant of lichen planus viz oral, follicular, zosteriform and hypertrophic lichen planus coexist in the same patient.

**KEYWORDS:** Follicular, Hypertrophic, Lichen Planus, Multiple, Segmental, Zosteriform

### INTRODUCTION

Lichen planus is a dermatosis of unknown origin with typical clinico-pathological features<sup>1</sup>. Lichen planus may occasionally have certain variations which may present difficulty in diagnosis. This is especially true when the lesions happen to be arranged in a linear fashion. Of the many morphological variants described linear and zosteriform lichen planus are rare and unilateral lichen planus seems to be rarer<sup>1-3</sup>. We report a case in which different variants i.e. oral lichen planus, linear or zosteriform, follicular lichen planus & hypertrophic lichen planus exists in a single patient.

### CASE REPORT

A 30 year old male presented with three month history of progressive violaceous itchy hypertrophic and hyperpigmented plaque over dorsum of right foot and antero-lateral aspect of right lower leg (Figure 1)



**Figure 1: Showing Hypertrophic Violeceous Papules and Plaques over Dorsum of Right Foot**

There was history of progressive linear violaceous papules which started from right posterior axillary line and extended anteriorly in a interrupted manner along the Blaschko's line in T3 dermatome along with a few small single linear lesions (suggesting koebnerization) (Figure 2)



**Figure 2: Segmental Distribution of Lesions along Right T3 Dermatome**

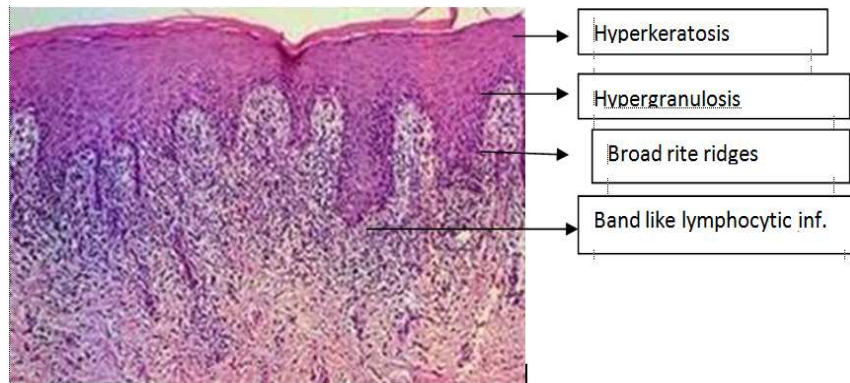
Lesions in left scapular area were in the form of multiple grouped hyperpigmented/ violaceous discrete follicular papules. The surface of papule on close examination revealed fine scaling & wickham's straiie (Figure 3)



**Figure 3: Showing Violeceous Follicular Papules in Scapular Area**

On examination oral mucosa showed asymptomatic lacy white network pattern on bilateral buccal mucosa. Scalp and nails are normal. Systemic examination did not reveal any abnormality. No history of any drug intake was present. All routine investigations and viral markers were negative.

Histopathological examination of the biopsy specimen revealed lichenoid interface inflammation with hypergranulosis, hyperkeratosis, hyperacanthosis, and degeneration of basal keratinocytes. A band like subepidermal infiltrate of lymphocytes was present, involving the follicles between the infundibulum and the isthmus, with sparing of the lower portion. In the basal layer colloid bodies were observed which are degenerated keratinocytes that stain pink with eosin (Figure 4)



**Figure 4: Showing Hyperkeratosis with Hypergranulosis of Epidermis. Rete Ridges are Broad and Short with Band Like Infiltration of Lymphocytes at Dermal Epidermal Junction**

## DISCUSSIONS

Lichen planus is an inflammatory skin condition, characterized by itchy, polygonal flat-topped pink or purple lesions on the arms and legs. It can involve the glabrous skin, mucous membranes, hair and nails. The typical rash of lichen planus is well-described by the "6 Ps": well-defined pruritic, planar, purple, polygonal, papules and plaques. Besides the typical lesions, many morphological varieties of the rash may occur. There are many variants of LP including hypertrophic, follicular, linear, zosteriform, oral, actinic, pigmentosus, annular, atrophic, erosive, bullous and guttate principally involving skin and mucous membranes.

Numerous cases of linear lichen planus, have been reported in the literature, but there have been notably few of the more rare zosteriform lichen planus. There is a definite distinction between the linear and the zosteriform type of lichen planus, to which there has not been strict adherence. In the former condition the papular elements appear as narrow lines not over 1 or 2 cm. wide, which may follow the course of a nerve, of a vein or of a lymphatic vessel or one of Voigt's lines. In the latter the lesions form a band several centimeters wide that follows the course of a peripheral cutaneous nerve and its branches or appears over areas of radicular nerve distribution.<sup>4</sup>

The various dermatosis occurring with segmental presentation or in area innervated by a particular spinal nerve raised the possibility of etiology to be of neural origin<sup>5</sup>, but recently it has been suggested that lesions occurring in so-called zosteriform pattern do not follow segmental pattern rather follow the blaschko's lines<sup>3</sup>. These lines do not correspond to any known nervous, vascular or lymphatic structures.<sup>6</sup> these lines represent distribution of autonomic motor-visceral afferents or stretching of the skin during embryogenesis. The lines of Blaschko may be followed by some X-linked, congenital and inflammatory skin disorders.<sup>7</sup>

Lichen planopilaris (also known Follicular lichen planus), in this individual keratotic follicular papules and studded plaques were seen. Sites of predilection include the trunk and medial aspect of proximal extremities. It may also affect the scalp with development of scarring alopecia. The triad of follicular LP of skin and/or scalp, multifocal cicatricial

alopecia of scalp and non-scarring alopecia of axillary and pubic region has been described as Graham Little–Piccardi–Lassueur syndrome<sup>8</sup>. Follicular LP must be distinguished by biopsy from keratosis pilaris, Darier’s disease, follicular mucinosis, and lichen scrofulosorum and, in the scalp, from lupus erythematosus.

Hypertrophic LP most often occur on the lower limbs, especially around the ankles and pretibial region; venous stasis has been put forwards as an explanation. The development of hypertrophic lesions greatly lengthens the course of the disease, as they may persist for many years. When such lesions eventually clear, an area of pigmentation and scarring may remain and there is often some degree of atrophy. They must be distinguished from lichen simplex chronicus and lichen amyloidosis (papular).

Oral lesions tend to last far longer than cutaneous lichen planus lesions. In oral LP most frequent location is the buccal mucosa, gingiva and tongue. The most known clinical characteristics of LP are lesions with fine crossed white-grayish lines, called Wickham's striae.<sup>9</sup> The oral LP is classically described in six types: Reticular, atrophic, ulcerative popular and rarely bulous type.<sup>10</sup>

## CONCLUSIONS

In conclusion linear lichen planus can present along the line of blaschko. Therefore we should be consider it among various differential diagnosis of linear pigmentary disorders .Rarely some forms of LP may co-exist, it needs further research at molecular level to know whether various variants of LP have sameetiology or different etiology. This case is reported for the rare presentation of zosteriform, follicular, hypertrophic and oral lichen planus in a single patient.

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