

## CASE REPORT

# Utility of Dermoscopy in Diagnosing Reticular Variant of Lichen Planus Pigmentosus

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## ABSTRACT

Lichen planus pigmentosus (LPP) is a fairly common benign pigmentary disorder in India. This disease was first described in India in 1974. The four main patterns of pigmentation delineated in this disease include diffuse, reticular, blotchy, and perifollicular.

We present a case of the rare reticular variant of LPP with its dermoscopic features.

**Keywords:** Lichen planus pigmentosus, Pigmentation, Reticular variant.

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## INTRODUCTION

Lichen planus pigmentosus (LPP) is a fairly common disease in India. This disease was first described by Dr Bhutani.<sup>1</sup> It accounts for 4.1% of patients seen in the pigmentary diseases clinic.<sup>2</sup>

It is characterized by the gradual appearance of hyperpigmented macules and patches predominantly on the face and other sun exposed areas. The various patterns of pigmentation in this benign, albeit cosmetically disfiguring disease include diffuse (77.4%), reticular (9.7%), blotchy (7.3%), and perifollicular (5.6%).<sup>2</sup> The rare reticular variant presents with asymptomatic pigmented macules arranged in a reticulate fashion on the body. We present one such case and its dermoscopic features.

## CASE

A 34-year-old male presented with asymptomatic insidious onset of pigmentation over the chest and upper abdomen since last 2 to 3 years (Figs 1 and 2). The pigmentation

started on the chest and gradually progressed to involve the upper abdomen. No similar complaints were noted elsewhere on the body. On cutaneous examination, reticular macular pigmentation was noted on the chest and upper abdomen. Dermoscopy using HEINE® NC1 dermatoscope revealed hyperpigmented granules studded on reticular pigmentation (Fig. 3).

Histopathologic examination revealed flattened epidermis with hyperpigmentation, focal areas of vacuolization of the basal layer, and dermal melanophages with very scant interface infiltrate (Figs 4 and 5). A few colloid bodies were noted in the upper dermis. A diagnosis of reticular LPP was made.



**Fig. 1:** Reticulate macular pigmentation on chest, neck, and abdomen

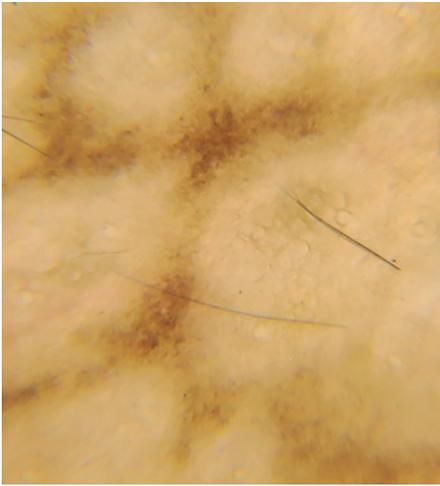


**Fig. 2:** Close-up view of pigmentation

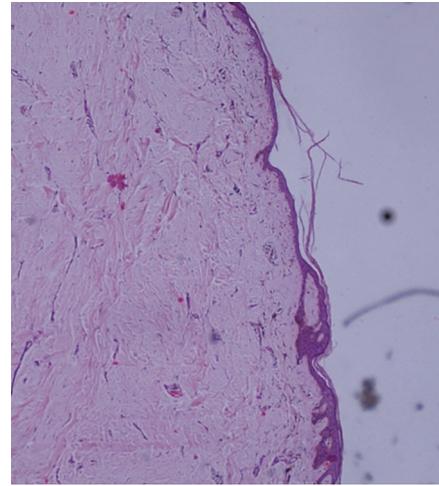
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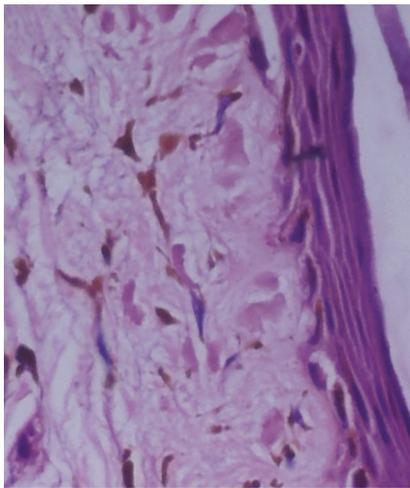
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**Fig. 3:** Hyperpigmented granules studded on reticular pigmentation



**Fig. 4:** The 2× view of epidermal flattening and hyperpigmentation, sparse upper dermal lymphocytic interface infiltrate and melanophages in superficial dermis



**Fig. 5:** The 40× view of basal layer vacuolization, melanophages, and colloid bodies

## DISCUSSION

Lichen planus pigmentosus is a macular variety of lichen planus.<sup>3</sup> The disease presents as insidiously appearing hyperpigmented macules or very subtle plaques appearing on photoexposed areas. The peak age of onset is 30 to 39 years in females and 20 to 29 years in males.<sup>2</sup> Controversy over sex predilection exists - males and females were noted to be equally affected by Bhutani et al,<sup>1</sup> however, Vega et al<sup>4</sup> showed a female preponderance. Lesions may be asymptomatic or associated with mild itching, burning or photosensitivity. The lesions are generally bilaterally symmetric. A new and rare poikilodermatous variant has also been described.<sup>5</sup> Various synonyms, some controversial, have been used to describe this disorder including ashy dermatosis,<sup>6</sup> erythema dyschromicum perstans,<sup>7</sup> and lichen invisible pigmentogene.<sup>8</sup>

Literature on dermoscopic features of LPP is relatively scarce. Friedman et al have described three

dermoscopic patterns in LPP inversus, a rare flexural variant of LPP.<sup>9</sup>

- *Diffuse:* Characterized by diffuse, structureless, and brownish areas probably associated with epidermal pigmentation
- *Dotted:* Fine or coarse gray-blue or brown dots or globules related to dermal melanophages
- *Mixed:* Combining diffuse brownish areas with dotted structures.

A prognostic value has been ascribed to the dotted pattern as it signifies deeper distribution of pigment implying resistance to treatment.

Histopathologic examination reveals a flattened epidermis, focal keratinocyte necrosis with civatte bodies, and focal vacuolization of basal layer cells. The dermis reveals scanty lymphocytic infiltrate at the dermoepidermal junction and dermal melanophages. The features of LPP on histopathology are very subtle compared with lichen planus. Therefore, more often than not, the diagnosis is arrived at by clinicopathologic correlation.

The disease is placid in its course and the major morbidity it causes is cosmetic.

## CONCLUSION

Reticular LPP is rare and hence is a diagnostic challenge. Dermoscopy is an easy noninvasive tool which helps in confirming the diagnosis.

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