DOI: 10.7860/JCDR/2022/56641.16987 Images in Medicine



# Wickham Striae- A Characteristic Dermoscopy Finding in Lichen Planus

SIVARAMAKRISHNAN SANGAIAH1, N ASHOK KUMAR2, C GEO DANNY3, K MANOHARAN4, NR VIGNESH5



**Keywords:** Dermatoscopic, Lichenified plaques, Papulosquamous disease

The clinical and dermoscopic images described here are those of a 46-year-old female patient who presented to the Dermatology Outpatient Department with dark coloured and severely itchy lesions over both legs for the past six months that had progressively become more thicker and bigger. Clinical examination revealed hyperpigmented lichenified plagues with a slightly verrucous surface over anterior aspects of bilateral legs [Table/Fig-1]. Dermatoscopic analysis of the lesion was done which showed multiple keratin plugs, linear blood vessels in the periphery and leaf veneation like Wickham striae [Table/Fig-2]. She was managed with once daily application of a Class I topical corticosteroid (clobetasol propionate 0.05% ointment) under occlusion during the night along with a urea containing moisturiser during daytime and an oral second-generation antihistamine at night for two weeks to which she responded well.





[Table/Fig-1]: Clinical photograph showing the violaceous hyperpigmented plaques

[Table/Fig-2]: Contact dermoscopic image taken at 10x magnification using ILLUCO IDS-1100 dermatoscope. (Images from left to right)

Lichen planus is an inflammatory papulosquamous disease mediated by autoreactive T-cells that target the basement membrane of skin and mucosa [1]. Varied clinical types exist of which this case is hypertrophic variant of lichen planus that characteristically presents as multiple well-circumscribed, itchy, violaceous papules and plaques, commonly over the anterior aspect of legs [2]. Dermoscopy is a very simple non invasive procedure can effectively pick it out through characteristic findings, most notable of which, is the Wickham striae. These are a network or intersecting white lines traversing through the lesion which can show different patterns like linear, radial streaming, annular, round and leaf veneation like [3], which was also seen in the present case [Table/Fig-2]. Active lesions may show dotted, globular or linear blood vessels in the periphery [Table/Fig-2] [4]. In hypertrophic lichen planus multiple keratin plugs which may be surrounded by a white halo (corn pearls) are additional findings [Table/Fig-2].

Lichen planus often presents with characteristic clinical features; hence, a skin biopsy can be circumvented in most cases. However, a clinical diagnosis can be challenging to make in a few cases mimicking other papulosquamous disorders (like psoriasis vulgaris). These cases can be easily picked up with a simple non invasive test like dermoscopy which highlights the presence of characteristic Wickham striae. This makes it a useful tool for general practitioners even in resource poor settings.

### REFERENCES

- [1] Rana S, Gupta R, Singh S, Mohanty S, Gupta K, Kudesia M. Localization of T-cell subsets in cutaneous lichen planus: An insight into pathogenetic mechanism. Indian J Dermatol Venereol Leprol. 2010;76(6):707-09.
- Paravina M. Hypertrophic lichen planus-A case report. Serbian Journal of Dermatology and Venereology. 2014;6(2):73-80.
- Errichetti E, Stinco G. Dermoscopy in general dermatology: A practical overview. Dermatol Ther (Heidelb). 2016;(4):471-507.
- Güngör Ş, Topal IO, Göncü EK. Dermoscopic patterns in active and regressive lichen planus and lichen planus variants: A morphological study. Dermatol Pract Concept. 2015;(2):45-53.

#### PARTICULARS OF CONTRIBUTORS:

- Senior Resident, Department of Dermatology, Venereology and Leprosy, Sree Balaji Medical College and Hospital, Chennai, Tamil Nadu, India.
- Professor, Department of Dermatology, Venereology and Leprosy, Sree Balaji Medical College and Hospital, Chennai, Tamil Nadu, India.
- Assistant Professor, Department of Dermatology, Venereology and Leprosy, Sree Balaji Medical College and Hospital, Chennai, Tamil Nadu, India.
- Professor and Head, Department of Dermatology, Venereology and Leprosy, Sree Balaji Medical College and Hospital, Chennai, Tamil Nadu, India.
- Assistant Professor, Department of Dermatology, Venereology and Leprosy, Sree Balaji Medical College and Hospital, Chennai, Tamil Nadu, India.

## NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Dr. C Geo Danny,

Assistant Professor, Department of Dermatology, Venereology and Leprosy, Sree Balaji Medical College and Hospital, Chennai-600044, Tamil Nadu, India. E-mail: geodanny43@gmail.com

#### **AUTHOR DECLARATION:**

- Financial or Other Competing Interests: None
- Was informed consent obtained from the subjects involved in the study? Yes
- For any images presented appropriate consent has been obtained from the subjects. Yes

## PLAGIARISM CHECKING METHODS: [Jain H et al.]

Plagiarism X-checker: Apr 02, 2022

- Manual Googling: Jun 10, 2022
- iThenticate Software: Aug 22, 2022 (5%)

ETYMOLOGY: Author Origin

Date of Submission: Mar 25, 2022 Date of Peer Review: May 19, 2022 Date of Acceptance: Jun 14, 2022 Date of Publishing: Nov 01, 2022