

Chapter 26

Pruritic Erythematous Plaque on the Knee



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Case Presentation

A 9 years old male boy with no relevant history was seen in the dermatologic clinic due to a pruritic, erythematous plaque with months of evolution on his right knee (Fig. 26.1). The lesion had history of 3 years; the patient told he had no relevant

Fig. 26.1 Asymptomatic pruritic erythematous plaque on the right knee in male patient 9 years old



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Fig. 26.2 Dermoscopic examination of the plaque revealed whitish striations (projections) with a “fern leaf” aspect on an erythematous background, linear and rounded whitish streaks some of them are pigmented (Dermoscopy 3gen DermLite 3, magnification 10×)



familial or significant medical history apart of trauma on his right knee 5 years ago. On physical examination of the skin, he had single slightly scaly flesh colored well defined oval about 3 × 2 cm plaque on his right knee. Examination of other areas of the skin, hair, nail and oral cavity showed no abnormality. There is no evidence of apparent lymph node enlargement. Initially the patient tried topical steroid with slight response.

Dermoscopic examination of the plaque revealed whitish striations (projections) with a “fern leaf” aspect on an erythematous background (Fig. 26.2).

Based on the case description, clinical and dermoscopic photographs, what is your diagnosis?

1. Psoriasis.
2. Keloid.
3. Lichen planus.
4. Hypertrophic scar.

Diagnosis

Lichen planus

Discussion

Lichen planus is a chronic inflammatory disease that affects approximately 1–2% of the general population [1, 2]. About half of the patients with skin lesions have oral lesions, whereas about 25% present with oral lesions alone. They often occur bilaterally on the flexor surfaces of the extremities [3].

A detailed description of the peculiar striae and dots found on the surface of a lichen planus papule was given by Louis Frederic Wickham in 1895 and are referred as “Wickham’s Striae” [4].

The classic skin lesion consists of a flat-topped polygonal papule that is slightly erythematous to violaceous. A thin and adherent scale can be observed on top of it. On the surface there are reticular or pinpoint whitish structures, Wickham striae (WS), pathognomonic of this disease [5].

Dermoscopy findings showed polymorphic pearly whitish structures that correspond to WS with arboriform “fern leaf” projections. At the border’s linear vessels (radial capillaries) and erythematous globules can be seen, WS dermoscopic patterns [6]:

- Reticular (the most common).
- Circular.
- Radial streaming.
- Leaf venation.
- Starry sky/white dots [7, 8].

Key Points

- Lichen planus is a chronic inflammatory disease that affects approximately 1–2% of the general population.
- Dermoscopy is of high specificity and sensitivity in diagnosis of lichen planus.
- Wickham striae has different dermoscopic patterns which is clue for diagnosis (pathognomonic).
- Dermoscopy can improve the diagnosis and follow-up of patients with this dermatosis

References

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