



Denovo Prurigo Simplex and Nodularis in Paediatric Age Group: A Dermoscopic Insight

Yadav V*

Department of dermatology, Lady Hardinge Medical College, India

*Corresponding authors: Viday Yadav, Lady Hardinge Medical College, New Delhi, India, Email: vidyadermdoc@gmail.com

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Abstract

A dermoscope is also known as skin surface microscope, epiluminescence microscope, or episcope. It helps to visualize fine skin structures which human eye cannot see. Several dermoscopic patterns have consistent connections with various diseases, making them useful diagnostic add for distinguishing many similar looking dermatoses. Using invasive diagnostic methods such as skin biopsy is not always feasible in paediatric age group due to lack of cooperation with the procedure and apprehension of the parents. Hence dermoscope, being a non-invasive tool, helps a lot to alleviate the need for skin biopsy. We report dermoscopy of two paediatric cases of de-novo prurigo simplex and nodularis.

Case Report

10-years-old girl child presented with itchy lesions on both upper limb and lower limbs since 6 months. There was no history of any drug intake, infective foci and neuropsychiatric disorder, thyroid disorder, diabetes, and organ dysfunction and workup for the same was normal. On examination, multiple intensively pruritic hyperpigmented papules and nodules of variable size (Figure 1a). Other cutaneous and mucosal examination was within normal limits. Differential diagnosis of lichen planus hypertrophicus and actinic prurigo was kept. Parents denied for biopsy. Dermoscopic examination showed red globules, white scaling and radially arranged whitish peripheral striations, non-homogenous brown scattered pigmentation (Figure 1b & 1c) and diagnosis of prurigo nodularis was made. Other case of 8-years female presented it lesions on both upper and lower limbs for 1 year. There was no history of any drug intake, infective foci and neuropsychiatric disorder, organ dysfunction and thyroid disorder and workup for the same was normal. On examination multiple haemorrhagic excoriated lesions were seen over both upper and lower limbs (Figure 2a).

Dermoscopic examination showed whitish scaling, red, brown haemorrhagic confluent dots and globules, which gets confluent due to repeated trauma caused by excoriations (Figure 2b & 2c) and diagnosis of prurigo simplex was made.



Figure 1a: Shows hyperpigmented papules and nodules of variable size on dorsal aspect of both feet.

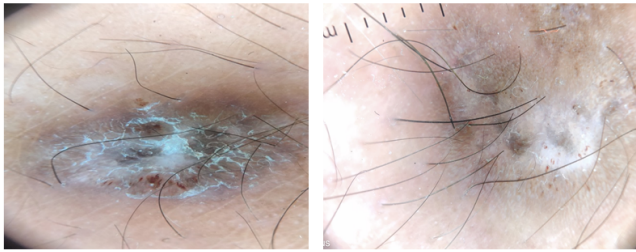


Figure 1b & c: (Dermlite dl4 10x): Dermoscopy reveals red globules, white scaling and radially arranged whitish peripheral striations, non-homogenous brown scattered pigmentation.



Figure 2a: Shows multiple haemorrhagic excoriated lesions were seen on upper limb.

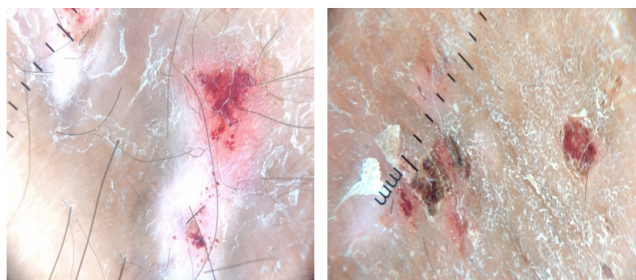


Figure 2b & c: (Dermlite dl4 10x): Dermoscopic examination shows whitish scaling, red-brown haemorrhagic confluent dots and globules, which gets confluent due to repeated trauma caused by excoriations.

Discussion

Pruritus is defined as a discomforting skin sensation accompanied by the desire to scratch. Chronic pruritus (≥ 6

weeks) is the most common skin symptom of many disorders. Patients suffering with chronic pruritus have a decreased sense of well-being as well as a hampered social, family, and professional life. The persistent pruritus diagnostic technique tries to identify the cause and trigger factors and necessitates a thorough investigation for an underlying dermatological, systemic, neurological, or mental cause [1]. It is characterized by pruritic skin disease and is often papulo-vesicular or excoriated and also called as prurigo strophulus [2,3]. It can affect both male and female of all ages. The pathophysiology of denovo prurigo is complex and not understood exactly [4]. The common cause of acute prurigo in children includes ectoparasitosis infestations as scabies, insect bites, lice, and fleas, or rarely an external irritant factor such as pollen or dust. Chronic prurigo (44.4%) in children is caused by a delayed hypersensitivity reaction caused by continued exposure to environmental allergens [2]. The dermoscopy of prurigo nodularis is characterized by red globules and white lines arranged linearly (Starburst like pattern). Dermoscopic examination helps to differentiate prurigo nodularis from lichen planus hypertrophicus (white crossed lines indicates wickham striae and grey-blue globules melanin incontinence and vacuolar degeneration), actinic prurigo, nodular scabies [dotted vessels, presence of mite (hang glider sign) and burrows (jet with condensation trails)] and acquired reactive perforating collagenosis [Central round yellow or brownish-greenish structureless area surrounded by a white keratotic collarette and an erythematous halo with or without dotted vessels ("trizonal concentric" pattern)] [5-8]. Dermoscopic features of prurigo simplex (whitish scaling, red haemorrhagic confluent dots and globules) has not reported in literature to the best of our knowledge.

Prurigo strophulus poses a particularly complex diagnostic challenges because the aetiologies are numerous and can become intertwined, hence dermoscopy is an important diagnostic tool to reach the diagnosis in paediatric cases where parents do not give consent for invasive procedure such as skin biopsy to confirm the diagnosis. Timely diagnosis and management of these cases with emollients, antihistamine, corticosteroids, calcineurin inhibitors, calcipotriol etc is important so that quality of life of these children could be improved and school dropout rates could be reduced.

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