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Case Report

Lichen spinulosus like variant of polymorphous light eruption: A report of a new variant

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Abstract Polymorphic light eruption (PMLE) is a highly prevalent photosensitivity disorder. We present a novel variant PMLE resembling lichen spinulosus in an 11-year-old girl. This rare PMLE manifestation displayed spiny follicular papules, deviating from typical presentations. Recognition of this variant expands our understanding of PMLE's diverse clinical spectrum and emphasizes the significance of accurate diagnosis for proper management.

Key words
Polymorphous light eruption; Lichen spinulosus; Dermoscopy.

Introduction

The term polymorphous light eruption (PMLE), initially coined by Carl Raschin in 1990[1] refers to an idiopathic, acquired photodermatosis, characterized by abnormal, recurrent, and delayed reaction to sunlight. It is an immune mediated disease triggered by delayed hypersensitivity reactions.[2] Different morphological forms like papular, papulovesicular, plaque, vesiculobullous, eczematous, prurigo like, lichen nitidus like, lichen planus like have been documented, justifying the term "polymorphous".[3] Herein, we report a new lichen spinulosus like variant of PMLE, hitherto undescribed in literature.

Case report

An 11-year-old girl presented with a history of recurrent on and off eruption on upper back from last 3 years, with present episode present for around 10 days. History of yearly recurrence around June continuing into July, followed by spontaneous remission was elicited. On examination, there were multiple, grouped, follicular keratotic papules, few coalescing to form plaque over upper back **(Figure 1)**. Excoriations were noted in few papules. Dermoscopy showed oval lesions having white lines surrounded by a zone of brown lines and dots, peripheral ring of white scales, and dotted vessels on a pinkish-red background **(Figure 2a)**. Histopathological examination **(Figure 2b)** done with a differential diagnosis of lichen spinulosus, phrynoderma, lichen nitidus, polymorphous light eruption, and follicular eczema revealed focal parakeratosis, epidermal acanthosis, and irregular elongation of rete ridges. Marked lymhpo histiocytic inflammatory infiltrate was noted in dermis with exocytosis of lymphocytes, extravasation of red blood cells (RBC), and dermal edema. A final diagnosis of PMLE, lichen spinulosus variant was made.

Discussion

PMLE stands as the most prevalent photodermatosis during childhood. Lesions associated with PMLE typically manifest between 2 hours to 3 days after sun exposure.

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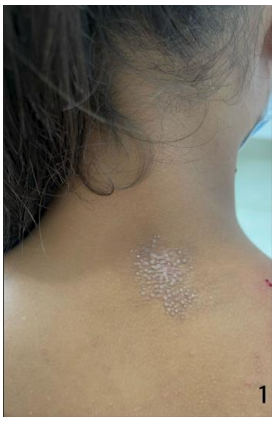

Figure 1 Multiple grouped follicular spiny papules few coalescing to form plaque over upper back.

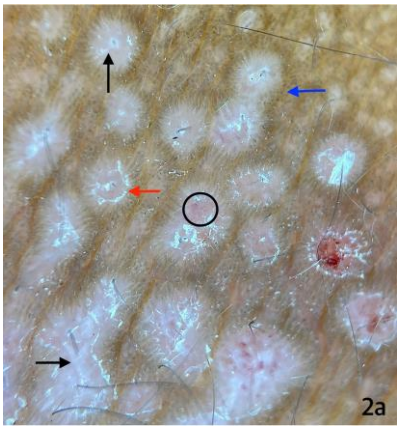

Figure 2a Dermoscopy (DermLite DL5; 3Gen; San Juan Capistrano, California, USA, noncontact polarized mode, 10x magnification, images capture with Dermlite adapter for iPhone 12 pro max) demonstrated white lines(black arrow), with surrounding brown lines and dots (blue arrow), peripheral ring of white scales(red arrow), dotted vessels (black circle) on pinkish- red background.

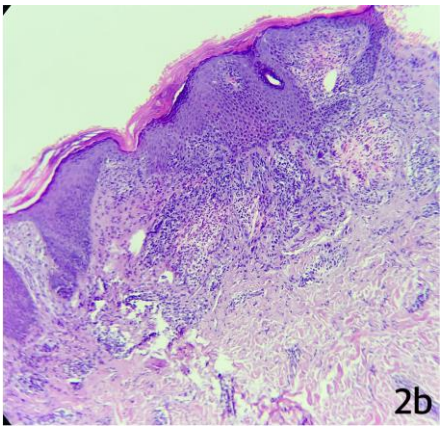

Figure 2b Histology showing hyperkeratosis, focal parakeratosis, irregular elongation of rete ridges, and spongiosis in the epidermis. Marked lymphohistiocytic inflammatory infiltrate noted upper dermis, with lymphocytic exocytosis, RBC extravasation, and dermal edema (H&E, x10).

Table 1 Dermoscopy and histopathology of differentials.

Differentials	*Dermoscopy*	*Histopathology*
Lichen nitidus	Presence of central brown shadow in white circular area.	Subepidermal dense focal lymphohistiocytic infiltrate with occasional Langhans giant cells. Collarettes of epidermal acanthosis on either side, which gave a “ball-in-clutch” appearance
Follicular Eczema	Perifollicular scaling, interfollicular hyperpigmentation, irregularly arranged red dots and prominent skin markings.	Epidermal hyperkeratosis and spongiosis; dilatation of follicular infundibulum with keratin plug, perifollicular spongiosis, perivascular and periadnexal lymphocytic infiltration.
Lichen spinulosus	Perifollicular scaling with normal interfollicular area.	Orthokeratosis, follicular plugging of the infundibulum and perifollicular infiltrate.

These lesions are frequently found on the face, "V" area of chest, nape of the neck and forearm extensor. They endure for a span of several days to weeks. PMLE typically present as shiny papules, with papulovesicles and eczematous lesions being the other common presentation.[4-5] The present case highlights a distinct presentation of PMLE as spinous follicular papules akin to those seen in lichen spinulosus. Appearance of ring of scales seen on dermoscopy is consistent with previous studies, and can act as a helpful clue in differentiating this variant of PMLE from lichen nitidus, follicular eczema, and lichen spinulosus.[6] Dermoscopy of the differentials of the present case are summarized in **Table 1**.[7] Recognition of this new presentation is important for correct diagnosis and thus management of patients.

Declaration of patient consent The authors certify that they have obtained all appropriate patient consent.

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Conflict of interest Authors declared no conflict of interest.

Author's contribution

AD: Diagnosis and management of the case, manuscript writing, has given final approval of the version to be published.

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