

Letters to the Editor

An interesting observation of polymorphous light eruption occurring on hypopigmented scars

Sir,
Polymorphous light eruption (PMLE), as the name indicates can present in myriad morphological forms; but the occurrence of

these lesions on scars is practically unknown. Herein, we report an interesting observation of PMLE preferentially involving the sites of hypopigmented scars.

A 28-year-old male reported to the dermatology outpatient department with pruritic papular eruptions on the outer aspect of forearms. The lesions were confined to the sites of hypopigmented scars on the forearms that were the sequelae of burn injury that he sustained before 3 months. The patient stated that these lesions developed within an hour of exposure to sunlight. He was treated with topical steroids and the lesions



Figure 1: Grouped papular lesions of polymorphous light eruption occurring on the hypopigmented scars (black arrow head) and the normal skin (blue arrow head) following photoprovocation test

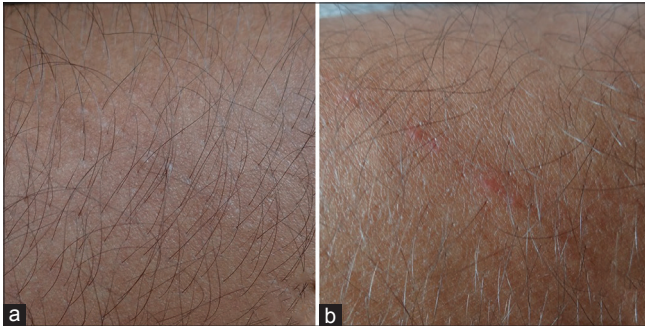


Figure 3: (a) Hypopigmented scar on the left forearm. (b) Polymorphous light eruption lesions following photoprovocation test



Figure 5: Erythematous papular eruptions on the hypopigmented scar on the right forearm following sunlight exposure

resolved completely. Few days later, the patient presented again with grouped micropapular lesions on the extensor aspect of forearms involving the scars as well as areas of normal skin symmetrically. After the lesions had resolved, a photoprovocation test (the patient was asked to expose the

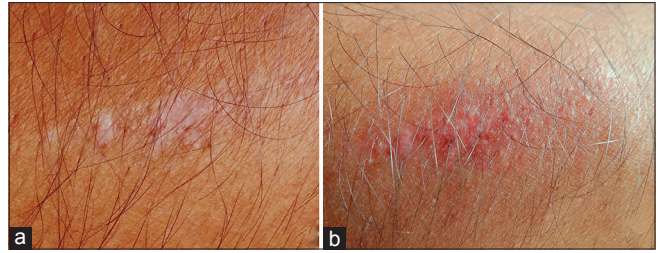


Figure 2: (a) Hypopigmented scar on the right forearm. (b) Polymorphous light eruption on the scar following photoprovocation test



Figure 4: Polymorphic light eruption on the right forearm on the nonscar site

forearms to the direct sunlight for 10–15 min) was done followed by the reappearance of similar lesions on the scar site and the surrounding areas in the forearm [Figures 1-5]. There was no history of intake or application of any photosensitizing medications. Histopathologic examination of the lesional skin biopsy specimen revealed mild acanthosis and spongiosis of epidermis with perivascular lymphocytic infiltration and edema of the dermis. [Figure 6] The diagnosis of PMLE was established on the basis of clinical, histopathological and photoprovocation test findings. As there was a predilection for the PMLE lesions to involve the hypopigmented scars, we would like to propose a new term for this variant of PMLE, the “scar PMLE”.

Polymorphous light eruption has been reported to present in a variety of morphological forms; papular, papulovesicular, vesiculobullous, insect bite-like, erythema multiforme-like and eczematous. Papular type is the most common followed by the papulovesicular type.^[1] In this case, PMLE lesions occurring in hypopigmented scars is a unique phenomenon not described previously. Possible pathomechanisms underlying PMLE lesions that preferentially affect scar sites have not been considered before. Increased density and activity in scar sites of Langerhans cells that are also key to immunological events leading to PMLE might be the reason.^[2,3] Thus, the phenomenon can be explained as Wolff’s isotopic phenomenon because of increase in the number and activity of Langerhans cells in the

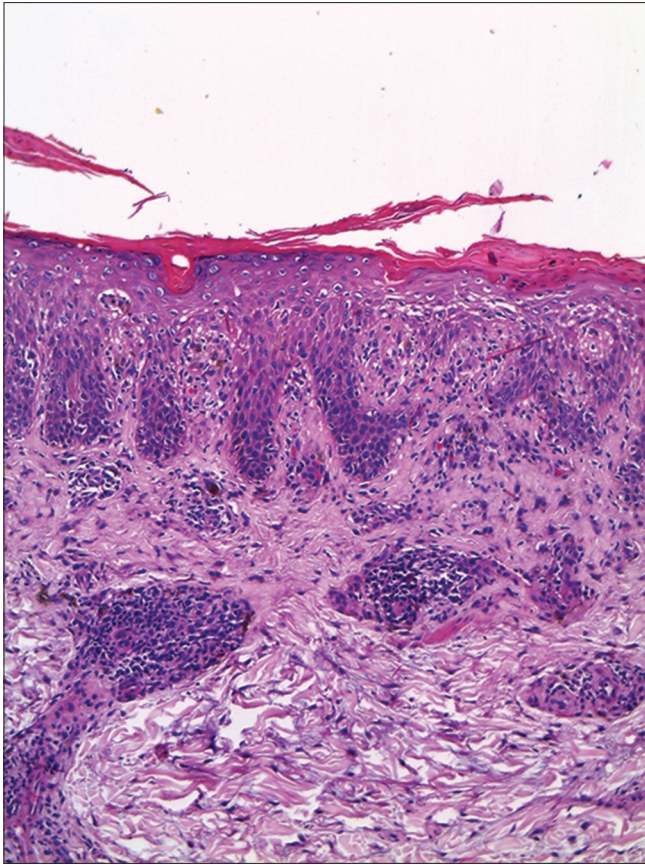


Figure 6: Histopathology of the light eruption showing mild acanthosis and spongiosis in the epidermis. The dermis shows perivascular lymphocytic infiltration and edema (H and E, $\times 100$)

scars that co-mediate type 4 hypersensitivity of PMLE. Paucity of melanin in the hypopigmented scars and the consequent focal reduction in photo-protection may also be contributory. Nonetheless, we need to probe deeper to fully understand the pathophysiology of this distinctive phenomenon - "scar PMLE".

**Pradeep Balasubramanian, Soumya Jagadeesan¹,
Lalitha Sekar¹, Jacob Thomas¹**

Department of Dermatology, PSG Institute of Medical Sciences
and Research, Coimbatore, Tamil Nadu,

¹Department of Dermatology, Amrita Institute of
Medical Sciences, Ponekkara,
Kochi, Kerala, India

Address for correspondence:

Dr. Pradeep Balasubramanian,
Department of Dermatology,
No. 5/23, Vivekananda Street Extension,
P.N. Pudur, Coimbatore - 641 041,
Tamil Nadu, India.
E-mail: drprady85@gmail.com

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