



Letter to Editor

Pityriasis rosea sparing patches of tinea versicolor as an atopic response

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ARTICLE INFO

Article history:

Received 02-03-2023

Accepted 03-04-2023

Available online 24-07-2023

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Sir,

Anatopic phenomenon denotes modification of the inflammatory response of one dermatosis by an unrelated skin infection at the same site.¹ Here we report a case of anatopic response, where the lesions of pityriasis rosea (PR) selectively spared the patches of pre-existing tinea versicolor in a patient.

A 20-year-old male presented with generalized, reddish, raised skin lesions of five days duration. The rash had initially appeared on the right arm. He had no comorbidities. There was no history of drug intake before the onset of the rash. He also had minimally pruritic hypopigmented skin lesions involving the face, neck, chest, trunk, and proximal limbs for the previous 2 months. He had consulted a dermatologist and was on treatment with topical luliconazole lotion for this.

On examination, there were multiple, bilaterally symmetrical, discrete and confluent, oval, erythematous papules and plaques with well-defined borders, and peripheral collarette of scales. The lesions were predominantly distributed on the trunk and proximal limbs, with a few lesions on the forearms. Mucosae, palms, soles, and scalp were normal. A provisional diagnosis of pityriasis rosea was considered. He also had numerous partly defined, discrete, and confluent hypopigmented macules with polycyclic borders and fine branny scaling

on the face, neck, trunk, proximal arms, and thighs with size ranging from 0.5cm to 3 cm.(Figure 1) The stretch sign was positive on these. KOH smear from skin scrapings showed spaghetti and meatball appearance suggestive of tinea versicolor. The erythematous plaques were strikingly sparing the areas of the hypopigmented macules.

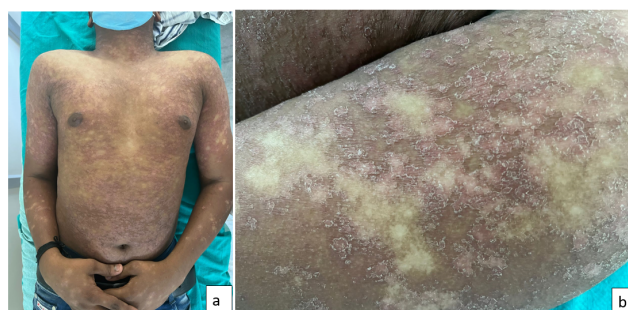


Fig. 1: a): Erythematous plaques with peripheral collarette of scales and hypopigmented macules in a generalized distribution; b): Erythematous plaques with collarette of scales sparing the tinea versicolor lesions

Hemogram was normal. Serum Venereal Disease Research Laboratory (VDRL) test in dilution was non-reactive and Treponema Pallidum Haemagglutination (TPHA) was negative. An incisional biopsy was done from an erythematous plaque on the trunk. Histopathology showed hyperkeratosis, parakeratosis, hypergranulosis,

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acanthosis, and spongiosis in the epidermis. There was interface dermatitis and perivascular lymphocytic infiltrate. (Figure 2) Histopathology was suggestive of pityriasis rosea. There were no epidermal cytopathic changes or lymphocytic vasculitis as expected in viral exanthems.

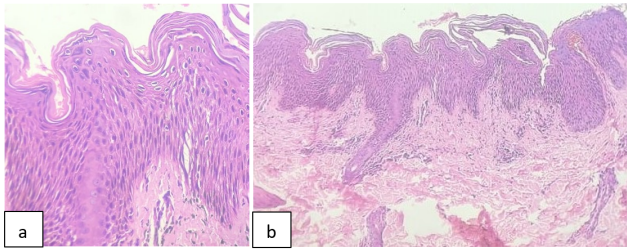


Fig. 2: a: Histopathology of skin lesion, epidermis showing hyperkeratosis, parakeratosis, hypergranulosis, acanthosis, and spongiosis (H and E, x 400); b): Dermis showing perivascular lymphocytic infiltrate and interface dermatitis (H and E, x 100)

The distinctive feature in our case was the anapopic response as demonstrated by the sparing of the lesions of tinea versicolor by the subsequent rash of pityriasis rosea. Pakran et al. reported four cases in which various dermatoses (viral exanthem, acute generalized exanthematous pustulosis, polymorphous light eruption, and irritant contact dermatitis) spared the sites affected with tinea versicolor.¹ They postulated that *Malassezia* might be eliciting local immunomodulation or may be acting as a physical barrier. Shenoy et al reported a case of dithranol-induced erythema sparing tinea versicolor lesions.² Other instances of anapopic response reported include sparing of leprosy patches by ampicillin hypersensitivity rash and dapsone hypersensitivity syndrome.^{3,4} Pavithran proposed that the non-occurrence of drug rash at sites of leprosy lesions might be due to changes in the local immune response and microvasculature, secondary to nerve damage in leprosy.³ Maddala et al. reported ‘sparing phenomenon’ where the rashes of dapsone hypersensitivity spared the lesions of leprosy and tinea versicolor.⁵

There are two other phenomena that somewhat resemble anapopic response, These are isotopic non-response or reverse isotopic response; and the Renbok phenomenon. Isotopic non-response/reverse isotopic response means the absence of eruption over an already healed skin disease. Stevens-Johnson syndrome, erythema multiforme, and cutaneous T-cell lymphoma sparing healed rashes of herpes zoster are some examples.^{6–9} Renbok phenomenon was described in autoimmune diseases, where there is suppression of one disease by the appearance of another. It was first reported by Happle et al. in 1991, where

patients with alopecia areata showed hair growth within plaques of psoriasis. This was postulated to be due to the interaction of psoriasis and alopecia areata, both of which have autoimmune pathogenesis, resulting in the suppression of pre-existing alopecia areata by the clinically active psoriasis.

The pathogenesis of these phenomena, including the anapopic response, is yet to be elucidated fully. To conclude, just as the presence of lesions, their absence too can be a valuable clinical finding, and may help in better understanding of the pathogenesis of some skin diseases.

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Cite this article: Sulaiman S, Prathap P, Asokan N, Balakrishnan S. Pityriasis rosea sparing patches of tinea versicolor as anapopic response. *Indian J Microbiol Res* 2023;10(2):114-115.