

Co-Existence Between Psoriasis and Vitiligo: A Case Report

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Abstract: ***Introduction:** Vitiligo is a pigmentary dermatosis where destruction of epidermal melanocytes causes macular or patchy depigmentation of the skin. Psoriasis is a chronic systemic inflammatory disease that typically presents on the skin as erythematous plaques with silvery scales. Co-existence between these two conditions is possible due to shared genetic basis and common cellular immune pathway. **Case Report:** Here we report a case in which an elderly male, known case of vitiligo since 5 year, presented with progressive red elevated lesions over patch of vitiligo on left lower limb since 6 months. Cutaneous examination revealed few erythematous plaque present over depigmented patch on left lower limb associated with fine scaling. Skin biopsy with dermatoscopy was done. **Discussion:** This case report is providing evidence regarding psoriasis susceptibility in generalized vitiligo patients with help of dermoscopy and histopathology.*

Keywords: vitiligo, psoriasis, skin depigmentation, erythematous plaques, dermatoscopy

1. Introduction

Vitiligo is a pigmentary dermatosis where destruction of epidermal melanocytes causes macular or patchy depigmentation of the skin. Psoriasis is a chronic systemic inflammatory disease that typically presents on the skin as erythematous plaques with silvery scales. Co-existence between these two conditions is possible due to shared genetic basis and common cellular immune pathway¹.

The objective of this report is to systematically evaluate the evidence of the association between psoriasis and vitiligo with the help of dermoscopy and histopathology

2. Case Report

A 56-year-old male, known case of vitiligo since 5 year, presented with progressive red elevated lesions over patch of vitiligo on left lower limb of 6 month duration, associated with itching. There was history of intralesional injection over vitiligo patches 4 year ago. There was no significant family and past history.

Cutaneous examination revealed single erythematous plaque present over depigmented patch on left lower limb associated with fine scaling (Black arrow). [fig.1]

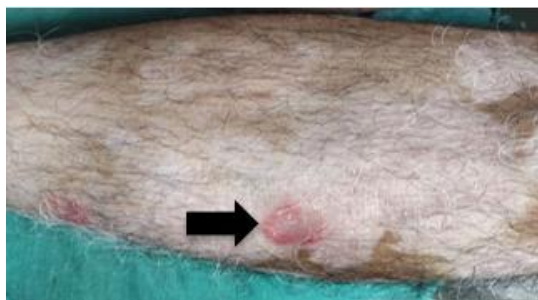


Figure 1

Also, we performed dermatoscopic and histopathological examination on lesions of vitiligo and psoriasis. On dermatoscopic examination, We found uniform red dots in psoriatic plaque (Black arrow) [fig.2]. Homogenous whitish structures and polka spots (Black arrow) were seen in vitiligo patch [fig 3].

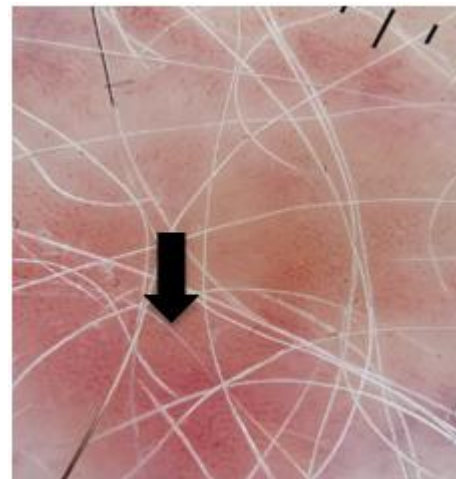


Figure 2

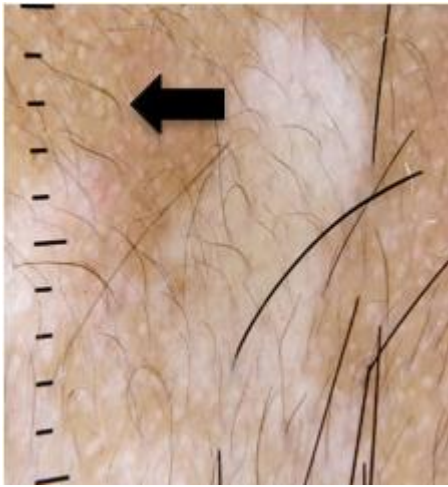


Figure 3

Biopsy from erythematous plaque revealed parakeratosis, thickened projections of the prickle cell layer of keratinocytes (Blue arrow) and suprapapillary thinning (Black arrow) [fig. 4]. Biopsy from depigmented patch revealed absence of melanocyte in basal layer (Black arrow) [fig .5].

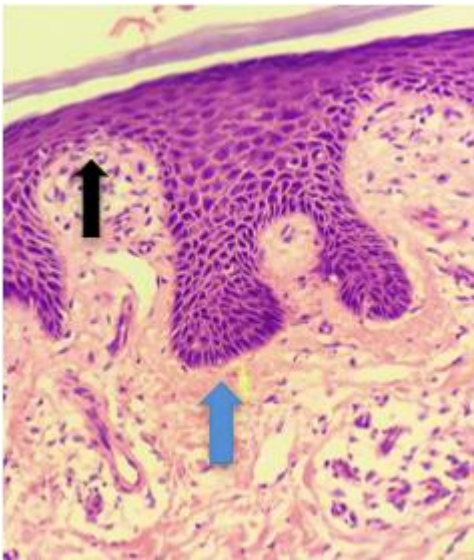


Figure 4

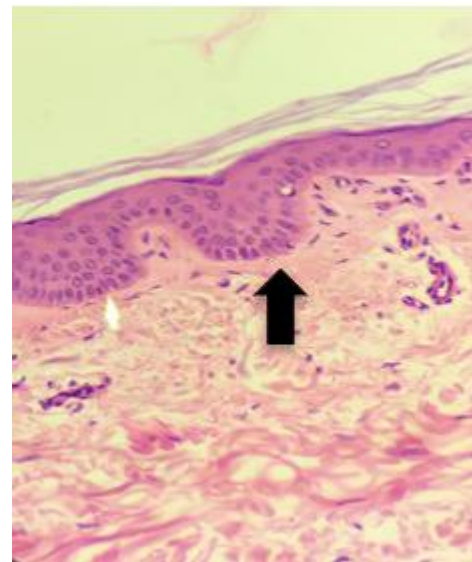


Figure 5

3. Discussion

One explanation for the association between psoriasis and vitiligo is common genetic locus in major histocompatibility complex for increased autoimmunity and inflammation^{8, 12}. Inflammasomes, multiprotein complexes in the cytoplasm that activate pro-inflammatory cytokines play an important role in this association⁵.

Inflammasome-related genetic sequence variants have been found to be associated with psoriasis in generalized vitiligo patients and play a role in psoriasis susceptibility⁸.

A second explanation is a shared importance of cellular immune pathways, including Th1 and Th17 in psoriasis and vitiligo⁶.

4. Conclusion

It is not common to find Psoriasis and Vitiligo co-localised. But dermoscopy (as a bedside investigation) help to confirm this uncommon association. Histopathology provides further confirmation for this co-existence.

Understanding of this association may have future therapeutic implications for both diseases.

Conflict of Interest: None

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