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 dermoscopy 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]

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 1

Figure 2
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].

3. Discussion

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

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

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

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

References


