New Onset of Psoriasis within Plaques of Vitiligo Treated with Narrow Band UVB: Case Report

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Case Report

A 23-year-old man known with vitiligo for many years visited our Department of Dermatology for his annual medical control. He was diagnosed during childhood with segmental vitiligo, non-familial type, for the last years he underwent different topical therapies: potent steroids, calcineurin inhibitors (tacrolimus), calcipotriol, emollients, homeopathy and even herbal therapy with no results.

He had no significant past medical history. There was no history of vitiligo, malignancies, and autoimmune diseases in the relatives of the patient. Dermatological examination revealed achromic large plaques on the trunk, limbs, sacral area.

Routine blood analysis including T3, fT4, TSH and ANA were within the normal ranges.

A decision of starting phototherapy: narrow band ultraviolet therapy (NB-UVB)-lamp was accepted by the patient. Phototherapy has been given thrice a week on non-consecutive days, for a maximum of 30 sessions in total. The treatment was well tolerated by the patient and with good results (pigmented spots within vitiligo plaques) (Figure 1).

Phototherapy was discontinued for the following three months, simple emollients were prescribed. A new medical control was asked by the patient 7 weeks later for onset of new lesions observed within vitiligo plaques.

Psoriatic lesions were diagnosed based on clinical (Figure 2) and histopathological grounds (Figure 3)

The patient refused any attempt of therapy very anxious about his new medical condition.

Discussion

Psoriasis and vitiligo are common dermatoses and taking into account their frequency in general population the association is to be expected. The coexistence of vitiligo-psoriasis was once regarded as rare, but maybe it is underestimated.

Figure 1: clinical response to phototherapy

Figure 2: small lesions of psoriasis within plaques of vitiligo

Figure 3: HEx40: acanthosis, parakeratosis, loss of the granular cell layer and parakeratotic microabscesses.

The first case of psoriasis accompanied by vitiligo was described by Selenyi in 1955 [1] and since then reports in both ways have drawn attention to this association. Although not rare, the pathogenic mechanism that can explain the coexistence of vitiligo and psoriasis remains not fully understood.
Vitiligo is an autoimmune disease and it is well accepted nowadays that almost 25% of patients with autoimmune diseases have a tendency to develop another autoimmune disorders, but psoriasis has not been reported as part of multiple autoimmune syndromes.

Many theories have been launched trying to explain a common pathogenic liaison between vitiligo and psoriasis: autoimmunity, Koebner phenomenon, the implication of neuropeptides, decreased melanocytes and melanin, level of cytokines [2,3].

A simple coincidence [2] or common pathogenic steps up to a level? Koebner phenomenon and other environmental factors on a specific genetic ground can explain at least partially the association?

Maybe the link between the two diseases is the cytokines: Jain et al. [3] found an elevated level of TNF-α in the perilesional skin of patients with vitiligo and TNF-α plays an important role in psoriasis pathogenesis.

Present case is a late appearance of psoriatic skin lesions within plaques of vitiligo induced probably by narrow band UVB as Koebner phenomenon (a paradoxical or reverse Koebner phenomenon) [4].

Is there any difference if psoriasis occurs first? Should we monitor the patients with one of these two dermatoses for the other one? Treatment modalities and follow-up should be different? Are some of the questions raised by the coexistence of vitiligo and psoriasis?

References