

# Colocalization of Vitiligo and Verrucous Epidermal Nevus: A Simulator of Depigmented Variant of Verrucous Epidermal Nevus

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## Abstract

Vitiligo, an autoimmune disorder, is known to co-localize with other immunological disorders like lichen planus and psoriasis. However, there are no reports regarding the co-localization of an autoimmune disorder (vitiligo) and a developmental disorder (verrucous epidermal nevus). We hereby present a 10-month-old infant who was visited for white patches on the right buttock and adjoining anterolateral thigh since 2 months of age. Lesions started as flat depigmented patches which gradually became raised. Examination revealed depigmented verrucous plaques along Blaschko's lines on the right buttock and adjoining thigh with depigmented macules and patches in the periphery. Histopathology revealed features of classical verrucous epidermal nevus in addition to focal interface dermatitis. Immunohistochemistry showed melanocytopenia. Hence, this was a rare case of verrucous epidermal nevus co-localized with a vitiliginous patch, clinically simulating a depigmented variant of verrucous epidermal nevus. (*Iran J Dermatol 2010;13: 96-98*)

**Keywords:** vitiligo, verrucous epidermal nevus, melanocytopenia

## Case Report

A 10-month-old infant was visited for asymptomatic, light colored raised lesions on the right buttock and right thigh since 2 months of age. Lesions started as whitish patches on the right buttock which gradually became raised and extended onto the right thigh. Lesions were not preceded by erythema or vesiculation. There was no history of similar complaints in the family.

Examination revealed depigmented verrucous plaques on the right buttock extending onto the right anterolateral thigh (Figure 1). In the periphery of these plaques were few depigmented macules and patches. Some of the patches showed foci of normal pigmentation within them (Figure 2). Koebner's phenomenon was also observed (Figure 2).

Skin biopsy from a verrucous plaque revealed basket weave orthohyperkeratosis with "church spire" like papillomatosis (Figure 3). There was

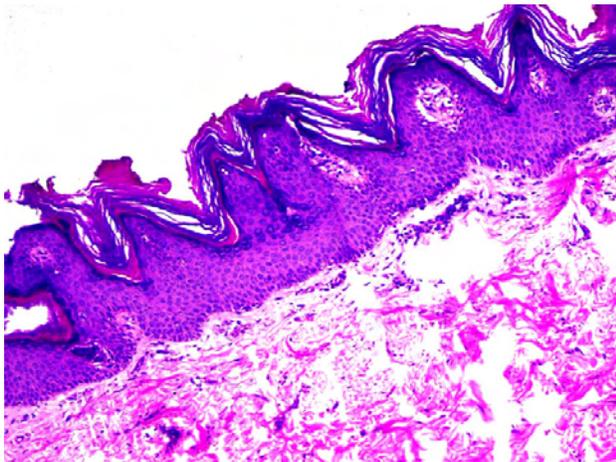
sparse superficial perivascular and periappendageal lymphohistiocytic infiltration along with focal interface dermatitis. There was a



**Figure 1.** Well defined lichenified depigmented plaques and papules along the lines of Blaschko on the lateral side of the right thigh



**Figure 2.** Depigmented patches with islands of sparing. Also, note the linear lesions suggestive of Koebner's phenomenon



**Figure 3.** Basket weave orthohyperkeratosis with papillomatosis and sparse superficial perivascular lymphocytic infiltrates (H&E\*10)

decrease in the number of melanocytes and the same was confirmed by immunohistochemistry. Based on the clinicopathological features, we diagnosed this case as verrucous epidermal nevus co-localized with pre-existing vitiliginous patches.

## Discussion

Vitiligo, an autoimmune disorder, can occur not only with various systemic autoimmune disorders like thyroiditis and myasthenia gravis but also with

immunological dermatoses like lichen planus<sup>1-3</sup> and psoriasis<sup>4,5</sup>. However, developmental disorders like nevus have never been reported to occur in a vitiligo patch.

Verrucous epidermal nevus is usually a hyperpigmented verrucous plaque. There are two possibilities for any hypopigmentation or depigmentation; firstly, a nevus developing at a site which is hypopigmented due to some other causes and secondly, a rarer hypopigmented variant of verrucous epidermal nevus.

In our case, the occurrence of a depigmented patch and then development of a verrucous plaque on it, presence of Koebner's phenomenon, evidence of interface dermatitis and gross reduction in the number of melanocytes favour the diagnosis of verrucous epidermal nevus occurring at the site of a vitiligo patch. Such an observation has never been reported to date. However, there is a report of a case of linear, verrucous depigmented nevus in proteus syndrome which has some interesting findings<sup>6</sup>. Depigmentation in this case was attributed to mild degenerative changes in melanocytes. However, authors have not commented on melanocytopenia. They have reported that the skin biopsy from these plaques revealed superficial perivascular lymphohistiocytic infiltrates and some vacuoles in the basal layer. In view of these histological changes, it is prudent to hypothesize that this case could also be verrucous epidermal nevus co-localized with a patch of vitiligo as was our case.

Various authors have reported occurrence of immunological disorders like lichen planus and psoriasis at the site of vitiliginous patches. In all these cases, vitiligo occurred first and then patients developed other immunological disorders (lichen planus, psoriasis) over these patches and at other sites<sup>1-4</sup>. A similar chronology of occurrence is evident in our case. However, an unusual feature is the occurrence of developmental hamartoma at the site of a disorder with an immunological origin.

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