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Becker's Nevus with Lichen Simplex Chronicus Limited to the Nevus Lesion

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Abstract

Becker's nevus is an uncommon hamartomatous skin lesion. Many dermatoses and, rarely, abnormal systemic findings have been reported in association with Becker's nevus. The occurrence of lichen simplex chronicus (LSC) is rare in Becker's nevus. In this case report, we share our observation of a 23-year-old Bengali male with LSC in association with Becker's nevus.

Keywords: Disease, Nevus, Skin

1. Introduction

Becker's nevus is a hamartomatous hyperpigmented patch, first reported in 1948 by an American dermatologist, Samuel William Becker (1894 - 1964) (1). Several dermatoses have been reported in association with Becker's nevus. Box 1 shows a select list of these skin conditions (1-8).

Box 1. Selected Skin Conditions Reported in Association With Becker's Nevus, Listed Alphabetically

Skin Conditions
Acne
Desmoid tumor
Eczema
Hypohidrosis
Leiomyoma cutis
Lichen planus
Lymphomatoid papulosis
Plexiform neurofibroma
Prurigo nodularis
Scleroderma

Systemic abnormalities, such as ipsilateral limb shorting and breast hypoplasia, can also occur with this nevus (9). Lichen simplex is a localized area of chronic, lichenified eczema/dermatitis. There can be a single plaque or multiple plaques. It is also called neurodermatitis (10).

To our knowledge, the co-occurrence of LSC with Becker's nevus has not been reported. We share our observation of a young man with LSC limited to Becker's nevus.

2. Case Presentation

A 23-year-old healthy Bengali male, working as a cleaner, presented with pruritic lichenified papules in a dark spot on his left forearm persisting for several weeks (Figure 1). He had no known medical problems and was not on any medication. He had noted the dark hyperpigmentation and the increased hairiness of this patch since late childhood. He was diagnosed with Becker's nevus. Several months ago, he developed severe scratching that was limited to this patch, but he received no treatment for this itchiness.

There were no other skin lesions. A 4-mm punch biopsy (performed after obtaining informed consent from the patient) from a pruritic papule demonstrated thick hyperkeratosis and epidermal acanthosis, which were consistent with the clinical diagnosis of LSC. The patient was managed with a psychodermatological approach. He was advised to

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Figure 1. Lichenified papules of lichen simplex chronicus occurring in Becker's nevus

trim his nails, avoid scratching, distract his attention to the lesion, and avoid stresses in general.

He was prescribed a two-week course of topical betamethasone 1% ointment to be applied twice daily, and chlorpheniramine maleate (Histop) as a 4-mg tablet to be taken orally three times daily. He is being followed up clinically, but he has not visited the clinic.

3. Discussion

Various hypotheses and pathological mechanisms have been discussed to explain the occurrence of coexisting abnormalities in Becker's nevus (2). For instance, an increase in androgen receptors in Becker's nevus might contribute to the development of acneiform eruption and breast hypoplasia. Hypohidrosis that colocalizes with Becker's nevus is considered to be related to genetic mutation or mosaicism (2).

Wolf's isotopic response, which is the occurrence of a new unrelated disease at the same location as a previously healed disease, was also considered as a possible explanation. Because underlying Becker's nevus lesion continues to exist, several groups believe that this association of dermatoses with Becker's nevus is not exactly consistent with the definition of Wolf's isotopic response. Thus, they feel that Wolf's isotopic response-like phenomenon is a better term (2).

As a chronic skin condition, LSC is linked to emotional factors that are the sources of intense pruritic sensation (10). That pruritic lesions in our case were recurrent and always localized to the hyperpigmented patch suggests that the coexistence of these two conditions is more than a mere coincidence. Nonetheless, we could not verify the exact cause of the association of LSC with Becker's nevus in our case. However, as a possibility, anxiety generated by the shape of the nevus precipitated the LSC. The abnormal neural component of the hamartomatous lesion of Becker's nevus might be another factor in the development of LSC.

Footnotes

Authors' Contribution: All the authors (Samer Mriani, Bandar Tammar, Hasan Maghrabi, Khalid Al Aboud, Waleed Yamani, Zaher Al Asmary, Hamdan Al Osaimi, Hasan Al Qurashi, Adnan Al Ehibi, Faisal Alfeliet, Awatif Al Subyani, Hanan Barnawi, Ahlam Al Hakami, and Saleh Al Muntashiri) have contributed equally to all parts of the submission, including where applicable (study concept and design, acquisition of data, analysis and interpretation of data, drafting of the manuscript, critical revision of the manuscript for important intellectual content, statistical analysis, administrative, technical, and material support, and study supervision).

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