Hyperkeratosis of the Nipple and Areola

Report of 3 Cases

Amal Mehanna, MD; Johnny A. Malak, MD; Abdul-Ghani Kibbi, MD, FACP

**Background:** To date, approximately 43 cases of hyperkeratosis of the nipple and areola have been reported, most of which have been sporadic.

**Observation:** We describe 3 patients with this dermatosis who were encountered in the outpatient clinic of the Department of Dermatology at the American University of Beirut Medical Center, Beirut, Lebanon, within a 1-year period.

**Conclusion:** Hyperkeratosis of the nipple and/or areola may be more common than what has been reported in the literature. We propose a revised classification for the condition.

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Approximately 43 cases of hyperkeratosis of the nipple and areola have been reported in the literature.1 Most cases have been sporadic. Recently, within a 1-year period between June 1999 and May 2000, 3 patients with this dermatosis were encountered in the outpatient clinic of the Department of Dermatology at the American University of Beirut Medical Center, Beirut, Lebanon. This observation may indicate that hyperkeratosis of the nipple and/or areola may be more common than previously thought.

**REPORT OF CASES**

**CASE 1**

A healthy 32-year-old woman presented with asymptomatic progressive thickening of the areola of the left breast occurring over a period of 9 years. On physical examination, a verrucous keratotic plaque was found involving the areola of the left breast ([Figure 1A](#)). The left nipple as well as the areola and nipple of the right breast were normal. There was no evidence of warts, ichthyosis, or acanthosis nigricans. No family history of similar lesions was reported. Findings from histopathological examination showed profound compact hyperkeratosis and plugging with a slight to moderate degree of retiform hyperplasia of the epidermis ([Figure 1B](#)).

**CASE 2**

A healthy 20-year-old woman presented with asymptomatic, progressive changes involving both nipples and areolae occurring over an 8-year period. On physical examination, thick hyperkeratotic, verrucous and darkly pigmented plaques were found involving both areolae and nipples ([Figure 2](#)). The patient was otherwise healthy and had no other skin lesions. On histopathological examination, hyperkeratosi, papillomatosis, retiform hyperplasia, and a relative increase in pigmentation of the basal cell layer of the epidermis were revealed.

**CASE 3**

A healthy 22-year-old woman complained of asymptomatic verrucous nipples of a 4-year duration. On physical examination, both nipples appeared hyperpigmented and keratotic. The areolae were normal. Warts, ichthyosis, or acanthosis nigricans were not present. A review of her family history for similar lesions was normal. Findings from histopathological examination showed areas of compact and basket-woven hyperkeratosis, focal parakeratosis, and mild papillomatosis of the epidermis.

**COMMENT**

The fact that 3 cases of hyperkeratosis of the nipple and areola have been encoun-
The classification of hyperkeratosis of the nipple and areola was first described by Malik and associates in 1966. Numerous reports since that time have implicated a variety of etiologies, namely, disorders of keratinization such as ichthyosis, acanthosis nigricans, and Darier disease; secondary hyperkeratosis of the nipple and areola, such as keratolytic therapy, cryotherapy, and retinoid therapy; and idiopathic hyperkeratosis of the nipple and areola associated with other skin diseases, namely, disorders of keratinization such as ichthyosis, acanthosis nigricans, and Darier disease. Consequently, we suggest that “nevoid” be deleted, as a matter of fact, nevoid has been used only in a few articles in the literature. Therefore, we propose the following alternative classifications: (1) primary hyperkeratosis of the nipple and areola (occurring coincidentally with other skin diseases, namely, disorders of keratinization such as ichthyosis, acanthosis nigricans, and Darier disease); (2) secondary hyperkeratosis of the nipple and areola (occurring secondary to hormonal changes or in the setting of an internal malignancy or lymphoma); and (3) idiopathic hyperkeratosis of the nipple and areola (occurring predominantly in women in the second or third decade of life, for which no obvious cause can be detected). Our 3 cases presumably belong to the last classification.

Response to topical treatments for hyperkeratosis of the nipple and areola, such as keratolytic therapy, cryo-therapy, and retinoid therapy, is variable. Recently, carbon dioxide laser treatment has been reported to be effective.

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Corresponding author and reprints: Abdul-Ghani Kibbi, MD, FACP, Department of Dermatology, American University of Beirut Medical Center, PO Box 11-0236, Riad El Solh Beirut 11072020, Lebanon (e-mail: derm@aub.edu.lb).

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