Frictional melanosis of the areola associated with severe atopic dermatitis: A case report with striking dermoscopic features

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To the editor,

The nipple and areola region are affected by various skin disorders, including eczema, Paget’s disease, and nevoid hyperkeratosis. Pigmented lesions are produced on the nipple and areola by pigmented Paget’s disease (PPD), melanoma, pigmented basal cell carcinoma, and melanosis of the nipple and areola (MNA)1-4. Herein, we report a female patient who had severe atopic dermatitis with areolar frictional melanosis. A 38-year-old female patient presented with bilateral dark-brown-colored reticulated plaques on the areola and inverted nipples for approximately 5 years. Additionally, she had pruritus for approximately 10 years. She did not have any history of using prescription or over-the-counter drugs or any herbal supplements other than topical corticosteroids and moisturizers. She claimed to have made no contact with any foreign substances or excessive heat. She did not have any chronic illness, and her family history was unremarkable. A dermatological examination revealed widespread lichenified plaques and severe eczema affecting her whole-body area (Figure 1a). There were sclerosing pinkish-white lesions, impetiginous crusts, and different-sized dark-brown reticulate, irregular, asymmetrical pigmented lesions located on the outer part of the areola, and the normal anatomical structure of the nipple and areola region was destroyed (Figure 1b). Dermoscopic examination of the areolar lesions showed yellow crusts, pinkish-white structureless areas, and a pigmented thick, regular reticular network of thick lines, similar to a cross embroidery (Figure 1c). Physical examination showed no palpable mass or axillary lymphadenopathy. The mammary ultrasonography was normal. Neither she nor her family had a history of breast cancer. Laboratory tests showed a high level of immunoglobulin E and hypereosinophilia with
not very rare. In case of pigmented lesions of the skin, dermoscopic examination has been distinguished from malignant melanoma due to continuous rubbing instead of scratching, as a result of severe itching induced by atopic dermatitis. Lichenified and eczematous lesions were also seen owing to scratching over the extremities and trunk. Repeated friction may also have been responsible for the pigmentation of the lesions via mechanical stimulation of melanocytes over the areola region. Topical calcineurin inhibitors, especially when used on sun-exposed sites, may also cause hyperpigmentation. Shi et al. had reported a patient with chronic lip dermatitis who developed multiple labial melanotic macules after the application of tacrolimus 0.1% ointment and pimecrolimus 1% cream. Nonetheless, our patient did not have a history of topical or systemic drug use other than topical steroids and moisturizers for atopic dermatitis. Despite the atypical clinical appearance with asymmetric pigmentation and whitish areas, the dermoscopic examination has been distinguished from malignant lesions with a regular thick pigmented network structure. Frictional melanosis should be kept in mind in areolar pigmented lesions.

\section*{Ethics}

\textbf{Informed Consent:} Informed consent was taken.

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\textbf{Authorship Contributions}


\textbf{Conflict of Interest:} No conflict of interest was declared by the authors.

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