CORRESPONDENCE

Hypokeratosis of multiple Bowen’s disease of the palms

Dear Editor,

Bowen’s disease (BD), also known as in situ squamous cell carcinoma, may occur at any skin site; however, the involvement of the palmer aspect is rare. Skin lesions of BD typically present as a scaly erythematous plaque, whereas BD of the palms shows an atypical appearance. We herein present a case of multiple Bowen’s disease of the palms that clinically and histologically showed hypokeratosis.

An 82-year-old woman presented with an 8-year history of multiple erosions on her palms. She had been treated for hand eczema. Topical corticosteroids, emollient, moisturizers, or dressings had limited effects. A physical examination revealed multiple scaly erythema, fissures, and erosions ranging from 0.2 cm × 0.2 cm to 5 cm × 6 cm on her palms (Figure 1A). A dermatoscopic examination showed regularly distributed dotted vessels on a hypokeratotic area surrounded by scales and a crust (Figure 1B). There was no hyperkeratotic lesion, implying arsenic exposure on her palms. Assuming circumscribed palmer hypokeratosis (CPH), skin biopsy was performed on two lesions. Histopathological findings were diagnostic for BD. The epidermis was thickened with dyskeratotic cells, and the corneum was absent (Figure 1C). The cells lay in complete disorder throughout the epidermis. Cells appeared highly atypical and had large hyperchromatic nuclei (Figure 1D). She had drunk well water that was prohibited for use as drinking water by the government from the age of 13 years to 30 years. No other internal carcinoma was found by mass screening. She refused surgical excision. A treatment with cryosurgery was initiated, and the hypokeratotic area began to disappear.

A clinical diagnosis of BD of the palms is challenging. Our patient was considered as having hand eczema or CPH, which has

Figure 1 (A) Multiple hypokeratotic cutaneous lesions of the palm; (B) a representative dermatoscopic observation of a cutaneous lesion. The asterisk indicates the hypokeratotic area; (C) histological features of the hypokeratotic lesion. Arrow heads show a defect in the corneum (hematoxylin/eosin stain, magnification 4×); (D) the histology is consistent with Bowen’s disease (hematoxylin/eosin stain, magnification 20×).

Conflicts of interest: The authors declare that they have no financial or non-financial conflicts of interest related to the subject matter or materials discussed in this article.
recently been recognized as a distinctive epidermal malforma-
tion. Although a dermatoscopic examination assisted in the
diagnosis, there are currently no specific criteria for BD of the
palms. Dotted vessels and scales are suggestive dermatoscopic
features of BD. However, hypokeratosis, not hyperkeratosis was
observed in our case. Dotted vessels in the hypokeratotic area
can be observed in CPH. These dermatoscopic observations
misled our diagnosis. Similar to our case, a previous report
described a single erosive lesion of BD of the palm. Kanitakis
et al reported a case of premalignant CPH due to heavy sun
exposure. Their case had several instances of actinic keratosis
on the face, neck, and forearms. A single lesion of CPH of the
palm was observed, suggesting that CPH can undergo (photo)
carcinogenesis. In contrast, multiple lesions were observed in
our case, and no actinic keratosis was found. Our patient had
drank well water for 17 years. Since it was difficult to examine
the water quality of the well that our patient had used 50 years
ago, we were unable to reach a concrete diagnosis of arsenic-
related BD. However, multiple BD lesions on sun-protected areas
of the skin suggest arsenic-related BD, and CPH-like changes
could be secondary. Alternatively, multiple BD lesions may
have occurred after arsenic keratosis because the hypokeratotic
area was surrounded by some scales, which is a vestige of hyper-
keratosis. The development of internal carcinomas of the gut,
lung, liver, and bladder has been reported. Therefore, we
consider further follow-ups necessary for this patient even after
the remission of BD lesions.

In conclusion, we herein present a case of multiple BD of the
palms. To the best of our knowledge, we are the first to report hypo-
keratosis of BD using dermatoscopy and histology.

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Received: Mar 16, 2016
Revised: May 27, 2016
Accepted: Aug 6, 2016