Single Case

Epidermolytic Acanthoma on Fingers, Mimicking Flat Warts

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Keywords

Epidermolytic acanthoma · Epidermolytic hyperkeratosis · Flat wart · Verruca plana

Abstract

Epidermolytic acanthoma (EA) is a benign cutaneous condition. It is characterized by warty or flat-topped, keratotic papules that show epidermolytic hyperkeratosis in histology. EA has been described to occur in various locations, namely the trunk, face, and genitoscrotal area. However, it has not been previously reported to involve the palmar area. To the best of our knowledge, we present the first reported case of EA involving the palms and fingers.

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Case Report

A 40-year-old man presented with multiple asymptomatic, slow-growing papules on the palmar side of his fingers for 4 months which were stable in size (Fig. 1). There were no similar lesions on other areas of his body. Other family members were not affected. He was otherwise healthy and did not recall any precipitating factor or prior trauma.

Physical examination revealed 6 lesions of skin-colored papules on the palmar side of his fingers. The individual papules were flat-topped and keratotic, which on close examination showed interruption of normal dermatoglyphics of the fingers.

A biopsy specimen was obtained from the right middle finger (Fig. 2). There was a well-defined area of orthokeratosis over focal acanthosis of the epidermis. The stratum granulosum showed a distinct feature of perinuclear vacuolization with thick clumped keratohyalin granules, and degeneration of cells with an indistinct border in the granular and spinous layers. There was no evidence of koilocytes, and orthokeratosis alternating with parakeratosis was observed. In situ hybridization for high-risk HPV (types 16, 18, 31, 33, and 57) and low-risk HPV (types 6 and 11) was performed, which showed negative result. On the basis of clinical and histological features, the patient was diagnosed with multiple epidermolytic acanthoma (EA) of the fingers.

After discussion with the patient, he decided not to have treatment since the lesions were noninfectious, asymptomatic, and benign in nature.

Discussion

EA, first described by Shapiro and Baraf [1] in 1970, is a clinically and histologically distinctive benign epidermal tumor. Clinically, it presents as warty keratotic papules, and has a predilection site on the face and genitoscrotal area, resembling warts. However, on histological examination, EA reveals a focal well-defined area of epidermolytic hyperkeratosis [1, 2].

The etiology of EA is not yet known. Cohen et al. [2] demonstrated abnormality in K1 and K10 expression in lesional skin of EA. Others reported a possible relationship of EA to trauma, immunosuppression, and ultraviolet light [3–6]. Some authors suggested that it could be focal somatic mutation of K1 and K10, causing epidermolytic hyperkeratosis after exposure to trauma or other triggering factors [4].

EA can be classified into solitary and multiple forms [2, 5]. The solitary form can occur in the face, trunk, extremities, and genitalia with no predilection site. In contrast, the multiple form often occurs on the genitoscrotal area. To our knowledge, EA has not been previously reported occurring on the hands and fingers. It is likely that the diagnosis of EA on hands and fingers may be under-recognized. It is usually assumed to be warts, and patients are treated accordingly without pathological confirmation. Therefore, our case emphasizes that EA should be considered in the differential diagnosis of a flat wart on the hand or finger. It is difficult to diagnose EA based on skin examination only. We suggest that EA should be suspected in patients who have multiple lesions that are stable and not progressing.

No treatment is needed for EA, since the lesion is benign and not infectious. However, on a cosmetic basis, it can be treated with liquid nitrogen [6]. Also, in multiple lesions, a successful treatment with imiquimod cream has been reported [7].

In conclusion, we report a case of epidermolytic acanthoma, a benign tumor, previously described, but which has never been reported to involve the hands and fingers. This case emphasizes the awareness of this wart-mimicking tumor, especially in a patient who has multiple and nonevolving lesions.

Statement of Ethics

Patient consent for publication has been obtained. The authors have no ethical conflicts to disclose.

Disclosure Statement

The authors declare no conflicts of interest.

References

- 1 Shapiro L, Baraf CS: Isolated epidermolytic acanthoma. A solitary tumor showing granular degeneration. *Arch Dermatol* 1970;101:220–223.
- 2 Cohen PR, Ulmer R, Theriault A, Leigh IM, Duvic M: Epidermolytic acanthomas: clinical characteristics and immunohistochemical features. *Am J Dermatopathol* 1997;19:232–241.
- 3 Kazlouskaya V, Lambe J, Elston D: Solitary epidermolytic acanthoma. *J Cutan Pathol* 2013;40:701–707.
- 4 Sanchez-Carpintero I, Espana A, Idoate MA: Disseminated epidermolytic acanthoma probably related to trauma. *Br J Dermatol* 1999;141:728–730.
- 5 Abbas O, Wieland CN, Goldberg LJ: Solitary epidermolytic acanthoma: a clinical and histopathological study. *J Eur Acad Dermatol Venereol* 2011;25:175–180.
- 6 Kukreja T, Kronic A: Multiple epidermolytic acanthomas must not be confused with genital human papillomavirus infection. *Acta Derm Venereol* 2009;89:169–171.
- 7 Jang BS, Jang HS, Park HJ, Kim MB, Oh CK, Kwon KS: Multiple scrotal epidermolytic acanthomas successfully treated with topical imiquimod. *J Dermatol* 2007;34:267–269.

Fig. 1. Skin-colored keratotic papule on the side of the right middle finger.

Fig. 2. Histopathological findings. **a** Well-defined orthokeratosis, hypergranulosis, and acanthosis with coarse keratohyalin granules and eosinophilic material involving the granular and spinous layers. Hematoxylin and eosin. Original magnification, $\times 40$. **b** Vacuolar degeneration with thick clumped keratohyalin granules, and degeneration of cells with an indistinct border in the granular and spinous layers. Hematoxylin and eosin. Original magnification, $\times 400$.