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Verrucous Carcinoma of the Eyelid

Dear Editor,

Verrucous carcinoma (VC) is a rare variant of squamous cell carcinoma with low grade, well-differentiated, and very slow-growing malignancy. Due to its local invasiveness and recurrence, the treatment of choice is surgical excision with clear margins. We report a case of a female patient with eyelid VC.

A 78-year-old woman presented with a growing mass on the right medial canthal area that first appeared 4 months prior. The patient had a history of tumor on her right medial canthus, which had previously subsided following laser treatment at a private dermatology clinic but soon recurred into a larger sized tumor. On examination, a 5 × 5-mm-sized, well defined, hard, and elevated dome-shaped mass containing a cutaneous horn with a long projection of keratin was observed (Fig. 1A). There was no other ophthalmologic abnormality. After performing an incisional biopsy, the lesion was diagnosed as keratoacanthoma, and well differentiated squamous cell carcinoma could not be ruled out. Twenty days after the initial exam, at which the biopsy was performed, the size of the mass had increased (Fig. 1B). Therefore, complete excision and eyelid reconstruction with bilobed flap were performed. The histologic diagnosis was VC. Microscopic examination showed downward growth of a well differentiated atypical squamous epithelial lesion with marked superficial hyperkeratosis, and the lower portion of the tumor formed a wide base that appeared to exert pressure on the surrounding dermis (Fig. 1C-1E). There was no complication in functional or cosmetic aspects 7 months postoperatively (Fig. 1F). No evidence of recurrence was observed at that time.

VC is a low-grade variant of squamous cell carcinoma

that is clinically exophytic and locally aggressive. The typical location is the oral cavity, particularly the cheek mucosa, gingiva, or retromolar areas. The tumor might also be found on the skin surface including the plantar surface of the foot, hand, lower leg, genitalia, and less commonly, the eyelid [1]. To the best of our knowledge, there is only one case report of an Asian patient with occurrence in the eyelid [2], and five case reports have been published in total [2,3].

Macroscopically, VC shows exophytic growth as a pro-

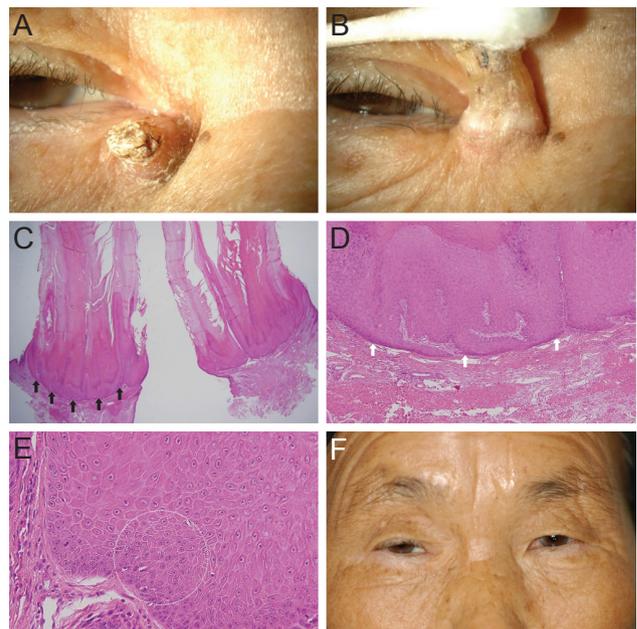


Fig. 1. (A) External clinical photographs of the presenting patient showing a 5 × 5-mm-sized mass consisting of a dome-shaped base, horn-shaped top and hyperkeratinized tip in the right medial canthal area. (B) Twenty days after the initial exam, the mass has increased in height. (C) The completely excised mass reveals superficial hyperkeratosis and “elephant feet-like” downward growth (black arrows) compressing the underlying connective tissue (H&E, ×10). (D) Note the expansile, pushing border (white arrows), which is a diagnostic feature of verrucous carcinoma (H&E, ×100). (E) High-power view demonstrates well-differentiated squamous epithelium with minimal atypia in some area (dotted circle) (H&E, ×400). (F) Good functional and esthetic results were observed at 7 months after surgery.

gressively enlarging mass and could be misdiagnosed as a large wart. However, microscopically, verrucous surface and “elephant feet”-like downgrowth seem to compress the underlying connective tissue and typically appear as dysplasia or minimal atypia [4].

Differential diagnoses include verruca vulgaris (common warts), giant keratoacanthoma, pyoderma vegetans, pseudocarcinomatous hyperplasia, and verrucous squamous carcinoma. Distinction between VC and verruca vulgaris or keratoacanthoma is not possible on the basis of pathologic findings of the superficial lesion. Because VC shows a benign cellular appearance in the superficial portion, malignancy can only be found in the deep portion of the tumor and epithelium. As shown in the current case, misguided histopathologic findings are common despite repeated biopsies; therefore, deep tissue sectioning including the basal layer of the epidermis is needed for proper diagnosis.

The prognosis of VC is often favorable because of the lack of distant metastasis [5]. Nevertheless, it can also be locally invasive and require surgical removal. Because incomplete excision can accelerate tumor growth and induce frequent local recurrence, complete surgical resection with safety margins is recommended.

The authors are the first to report a case of VC occurring on the eyelid in a Korean patient. Despite its rare incidence on the eyelid, VC should be considered in the differential diagnosis when squamous cell-derived tumors such as keratoacanthoma or large warts are suspected.

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Conflict of Interest

No potential conflict of interest relevant to this article was reported.

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