

A Case of Verruca Obliterating the Punctum

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Purpose: To report a case of verruca vulgaris appeared over punctum without involving conjunctival lesion.

Case summary: A 36-year-old woman presented with tearing of her left eye. On slit lamp examination, about 5mm-sized round papilloma inside of the punctum of the left lower eyelid was observed. The mass was obstructing the entire punctum. Excisional biopsy was performed with snip punctoplasty. In pathology exam, koilocytes were observed. Polymerase chain reaction (PCR) test showed the positive result of HPV types 6 and 11.

Conclusions: Verruca vulgaris could appear in the punctum and nasolacrimal drainage system without any conjunctival lesion.

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Key Words: HPV; Wart; Lacrimal apparatus; Eyelid

The eyelid papilloma refers to a group of benign epithelial proliferations on the eyelid. Of those, Verrucae, or wart, are benign proliferations of the skin and mucosa that result from infection of human papilloma virus (HPV). HPV have been detected in approximately 92% of conjunctival papilloma.^{1,2} On the other hand, verruca vulgaris by HPV is rare on the eyelid.³ Although there is some systemic studies of papilloma including verruca located on the eyelids, there is no reports of verruca blocking the lacrimal punctum. In this report, we present a complicated case of verruca vulgaris, obstructing the punctum of left lower eyelid, beneath the punctum.

CASE REPORT

A 36-year-old woman presented for evaluation of tearing

of the left eye present for one month. On slit lamp examination, an elevated pinkish mass under the punctum was seen. The mass was pushing upward against the punctum and was causing obstruction of the punctum of the left lower eyelid (Fig. 1). The surface of the mass was smooth and moist without any sign of inflammation. Excisional biopsy was performed after two snip punctoplasty with gentle pressure using a cotton swab. The lesion was a round, pinkish and translucent papillomatous mass on gross examination (Fig. 2). Microscopic examination of haematoxylin and eosin stain samples showed some epithelial cells possessed hyperchromatic and round nuclei with distinct perinuclear vacuolization (koilocytes) at high magnification (Fig. 3). Results of a polymerase chain reaction for (HPV) types 16, 18, 31, 33, 35, 52, and 58 (high risk) were negative. HPV types 6 and 11 (low risk) were positive.

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DISCUSSION

Verrucae, or warts, are benign proliferations of the skin and mucosa that result from infection of HPV. HPV types 6 and 11 have been found most commonly in 87% to 100%

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Figure 1. On slit-lamp examination, a neoplasm is visible through the punctum of the left lower eyelid.



Figure 2. On gross examination, the lesion was a round, pinkish, and translucent papillomatous mass measuring 5 mm.

of conjunctival papilloma and HPV types 16, 18, and 33 have also been found rarely.^{1,2,4} When located on the eyelid margin, a mild papillary conjunctivitis and a mild, fine, epithelial keratitis is often present.⁵ There is a need of differential diagnoses to exclude not only other infectious or benign lesions such as hordeolum, epidermal inclusion cyst, molluscum contagiosum, xanthelasma, nevus, actinic keratosis, but also malignant lesions such as squamous cell carcinoma, basal cell carcinoma, sebaceous gland carcinoma.

Observation or surgical excision is the primary choice of the treatment. However, there is a risk of recurrence in simple excision. It has been reported that verruca vulgaris responds better to cryotherapy. Some authors reported successful cure of recurrent verruca cases with mitomycin-C,

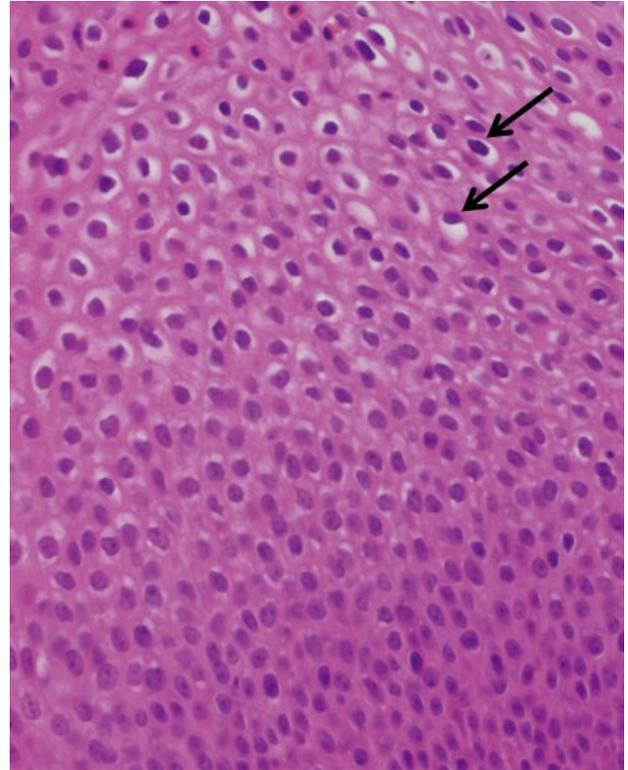


Figure 3. Histopathologic examination reveals some epithelial cells possessed hyperchromatic and round nuclei with distinct perinuclear vacuolization (koilocytes, indicated with arrows), which are pathognomonic signs of human papilloma virus (HPV) infection (haematoxylin and eosin stain, $\times 400$).

intralesional 5-fluorouracil.^{5,6} Although imiquimod has been reported to treat epithelial papillomas, there is a limitation for eyelid margin lesion due to its ocular surface toxicity. In our case, the patient was successfully treated by simple excision. The patient reported the resolution of epiphora after the verruca excision and did not suffer from the recurrence. In consideration of punctal occlusion complication, we performed additional two-snip punctoplasty.

Although study about mass lesions near punctum of the eyelid is not the case having rarity or profound medical importance, to the best of our knowledge, there is no report of verruca vulgaris involving punctum in Korea. In our case, the clinical situation was not difficult but tricky due to the location of the lesion like other clinicians have experienced. We warned the patient about possibility of recurrence and complication such as punctal occlusion. Nevertheless, we recommended the excisional biopsy procedure to the patient to resolve the symptom of epiphora and to exclude the possibility of malignancy. Suh et al.⁷ re-

ported that resection for mass lesions near punctum should be considered since they have a potential for spreading to the lacrimal system. Also, the study revealed that, of 29 cases, five cases (17.9%) were basal cell carcinoma. In our case, the papilloma involving the lacrimal canaliculus was treated well with simple excision and the pathology test confirmed the diagnosis of the verruca vulgaris.

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