

A Combination of Nevus and Papilloma in the Same Lesion in the Conjunctiva

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ABSTRACT

A 28-year-old female patient was admitted to our clinic with a mass in the caruncle of her left eye. As per a slit-lamp examination, a red-pink pedicle mass was hanging out of the pigmented base. The mass size was 10 mm, and it contained lobular structures. An excisional biopsy was performed. Histopathologically, the papillary proliferation of squamous epithelia on the conjunctiva was detected, and the epithelium showed koilocyte-like cells. Pigmented nevoid cells were seen on the basal layer of the epidermis and subepithelial zone. Immunohistochemistry tests were performed to investigate the effect of human papilloma virus (HPV), but HPV dye staining was not observed. Lower in-situ hybridization of the HPV test was studied. It was accepted as negative because of a non-specific and weak signal monitoring. Finally, the mass was reported as conjunctival nevus and squamous papilloma within the same lesion. No recurrence was observed at a 2-year follow-up. Despite the fact that the conjunctival nevi and papilloma often separately appear, they were simultaneously seen in the same lesion in this case, which is very rare. To the best of our knowledge, this is the first case report in the literature wherein the conjunctival nevi and papilloma are simultaneously seen in the same lesion.

Keywords: Conjunctiva, papilloma, nevus, human papilloma virus

Introduction

Conjunctival nevus is the most common benign tumor of the conjunctiva. It usually occurs in the first decades of life. It may be localized in the bulbus, caruncle, limbus, in the conjunctiva and rarely in the edge of the eyelid??.

Human Papilloma Virus (HPV) can cause benign or malignant lesions in the skin and mucous membranes. It has been shown to cause papilloma, dysplasia, squamous cell carcinoma in the conjunctiva (1).

The aim of this study is to present an unusual case of conjunctival nevus and papilloma which coexisted in the same lesion.

Case Presentation

A 28-year-old female patient was admitted to our clinic because of a mass in the inner caruncle of the left eye. It was learned that the mass appeared 6 months ago and its size increased in time. In her ophthalmic examination, visual acuity was complete in both eyes. Intraocular pressure was 15/15 mmHg. On the anterior segment examination, a red - pink colored pedunculated mass was protruding on the pigmented base of the left eye inner caruncle. The mass was 10 mm in size and when observed at large magnification (16x), the lobulated structures were seen (Figure 1). No cysts or feeding vessels were observed. The patient was orthophoric in the primary position and the globe movements were free in all directions. Fundus examination was normal in both eyes. The mass was decided to be excised since it gradually grew, caused irritation on the ocular surface and disrupted the cosmetic appearance. The mass was excised by excisional biopsy and pathological examination was performed. In the macroscopic examination, papillomatous development localized 0,4x0,3 cm on the base was observed in dimensions of 0.6x0.5x0.3 cm. Microscopic examination of the mass on the surface of the conjunctiva revealed exophytic, papillary proliferation of the stratified squamous epithelium, nevoid cell assemblages showing maturation and regular nests with pigments in the basal layer of epidermis and subepithelial areas. These struc-

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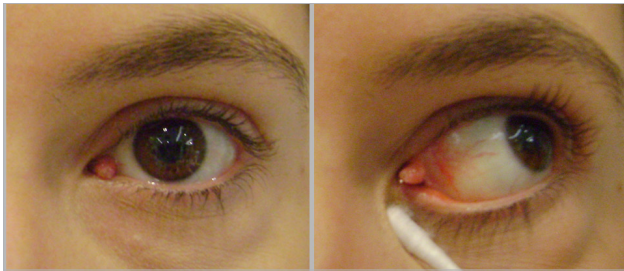


Figure 1. Pedunculated red-pink mass on the pigmented base of the caruncle of the left eye

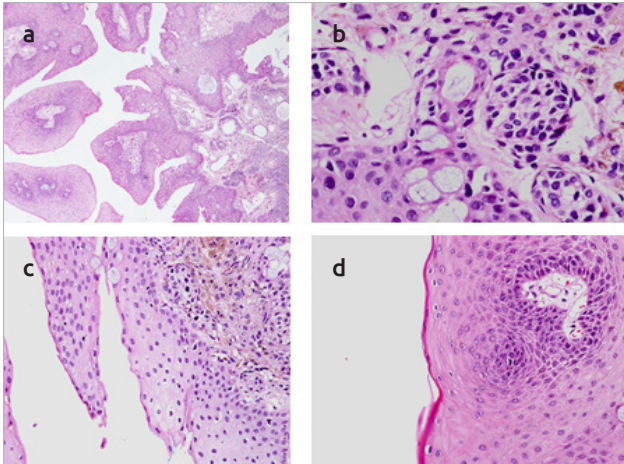


Figure 2. a-d. (a) Papillary structures on the surface and melanocytes under the epithelium (HEX100), (b) Melanocytes (HEX400) which have nested in the conjunctival epithelium (HEX400), (c) Nevusian pigment and nests (HEX200), (d) Coilocyte-like cells in the epithelium (HEX200)

tures contained hyalinized fibrovascular cores. Coilocyte-like cells were seen in the squamous epithelium forming papillary structures on the surface (Figure 2). Immunohistochemical examination revealed positive with S100 in nevoid cells and sparse positive staining with HMB-45. Sparse nuclear expression was observed in basal layer cells with Ki-67. HPV staining was performed immunohistochemically to detect the effect of human papilloma virus (HPV) on the lesion, but no staining was observed. Low-risk HPV (Inform HPV II Family 6 Probe, Ventana) was studied by in-situ hybridization method. Since nonspecific and poor signaling was observed, it was considered negative. The case was reported as conjunctival nevus and squamous papilloma. No recurrence was observed during the 2-year follow-up period.

Discussion

Conjunctival nevus is the most common benign tumors of the conjunctiva. They are usually pigmented, flat or slightly raised bulky lesions. When all conjunctival lesions are examined, it was determined that 53% of the cases were melanocytic lesions. Of these, 52% are conjunctival nevus, 25% are conjunctival melanoma and 21% are primary acquired melanosis (1).

According to their histological structure, conjunctival nevus is classified as combined nevus (70%), subepithelial nevus (24%), junctional nevus (3%) and blue nevus (3%) (2). The classification was made according to the stage of development of the lesion. Combined nevus is epithelial stromal junction and nevus containing subepithelial tissue layers (3). This case was also identified as a combined nevus in pathological examination.

The location of the conjunctiva nevus is variable and is most commonly observed in bulbar conjunctiva (33%). Other settlements might be caruncle (29%) and limbus (27%) and on the edge of the lid (1%) (4). In our case, the combined nevus was located in the caruncle of the left eye.

According to the degree of pigmentation, 51% of the conjunctiva nevus are pigmented, 28% are partial pigmented and 21% are amelanotic nevus. In pigmented cases, to distinguish the conjunctiva such as malignant melanoma from other pigmented lesions is very important. This distinction can be made by clinical, histopathological and immune histochemical methods (5).

Conjunctival nevus usually appears in the first and second decades of life. There are studies reported to contain progesterone receptors and it has been reported that there may be variability in the appearance of nevus during puberty and pregnancy (5). The conjunctival nevus is mostly diagnosed at the age of 26 years. Our case was 28 years old at the time of diagnosis.

The conjunctiva nevus is usually followed at regular intervals, but excision is recommended in cases of growth in size, differentiation in color, presence of nourishing vessels and in cases of suspicion of malignancy.

Squamous papillomas are the most common benign lesions in the conjunctiva. Papillomas constitute 17.4% of conjunctival epithelial tumors. It is known that HPV has an important role in the development of papillomas and has been shown to be particularly related to type 6,11,16,18,33 (6, 7).

In addition, exposure to ultraviolet rays or chemicals such as trifluridine, ocular trauma and vitamin A deficiency are among the factors involved in the etiology. In a study conducted by Sjö et al. (8), 165 patients with conjunctival papilloma were examined and it was found that 81% of cases were found to have HPV and HPV 6 and 11 were the most common ones. In another study, HPV serotypes were found in normal conjunctiva and HPV was not detected in some cases of squamous carcinoma (9). Papilloma was detected in this case, but HPV could not be detected in the examinations.

The base diameter of the conjunctival nevus was found to be between 0.2 and 30 mm. In this case, the base diameter of the nevus was 0.4 mm.

In the study conducted by Levecq et al. (10), 255 conjunctival nevus patients were included and surgical excision was performed in 29% of the patients. The reasons of excision among these patients were: Suspicion of malignant transformation was detected in biomicroscopic examination in 13% of these patients, in 4% increased size of the nevus followed by photodimulution, in 45% of patients concern about malignant transformation, in 12% cosmetic discomfort and ocular surface irritation in 25%. In this case, the excision decision was made due to the pigmented based mass with papillamatus structures, ocular surface irritation and disruption of cosmetic appearance.

Squamous papillomas can be localized anywhere in the conjunctiva. The most common location was reported as medial and inferior conjunctiva. Coilocytosis seen in epithelial cells is the morphological marker of HPV infection. In this case, coilocyte-like cells were seen in the squamous epithelium.

Squamous papillomas in the conjunctiva are usually spontaneously regressed and therefore cases should be followed. Recurrence is also high in excised cases. Sjö et al. (11) reported in their study that one or more recurrences occur in 11% of the excised cases.

Although the nevus and papilloma are commonly seen separately in the conjunctiva, they were unusually seen in the same lesion. There was clinical papilloma image and coilocytosis, but HPV was not detected serologically. Pigmented nevus was also found at the base of the mass. No recurrence of nevus or papilloma was observed 2,5 years after excision.

Conclusion

This is the first case report of cooccurrence of nevus and papilloma in the literature. This case has shown that benign lesions such as papilloma may have a lesion at the risk of being converted to malignancy. A good biomicroscopic examination should be performed in conjunctival lesions and excision of suspicious lesions should be performed.

Informed Consent: Only written consent is given for surgical operation. The case presentation was retrospective and could not be obtained.

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