

Seborrheic Keratosis of the Conjunctiva: A Case Report

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Seborrheic keratosis is a benign epithelial neoplasia that occurs mainly in the skin of the eyelids and face. We describe a case of seborrheic keratosis of the conjunctiva confirmed by histopathology. A 72-year-old man presented with a recurrent conjunctival mass involving the nasal side of his right eye. Clinically, a diagnosis of conjunctival papilloma was made, and a mass excision was performed. The histopathological analysis evidenced a conjunctival-covering epithelium with papillomatous changes and irregular acanthosis, at the expense of a proliferation of basaloid cells. In addition, the lesion exhibited multiple pseudohorn cysts containing keratin. With the above findings, a diagnosis of conjunctival seborrheic keratosis was established. The occurrence of seborrheic keratosis on the conjunctiva is rare. In this case, seborrheic keratosis was confirmed by pathologic report despite its similar appearance with papilloma. Seborrheic keratosis should be considered in the differential diagnosis of conjunctival lesions.

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Key Words: Conjunctival mass, Seborrheic keratosis, Papilloma

Recurrent conjunctival lesions are a diagnostic challenge for clinicians. In some cases, apparently indolent lesions represent diagnoses with a bad prognosis. In others, rapidly growing tumors, suggesting malignancy, are in fact benign lesions with good prognoses.

Seborrheic keratosis is a common lesion found on the eyelids and face of middle-aged and elderly persons.^{1,2} Other common locations include the central areas of the body, such as the chest, back, and abdomen.³ These lesions are well-circumscribed growths that are friable and have a "stuck-on" appearance.³ Irritative symptoms are frequent in seborrheic keratosis, and the swelling of these lesions can be mistaken for basal cell carcinoma or malignant melanoma.³⁻⁷

However, the occurrence of this benign epithelial neoplasia on the conjunctiva is very rare. There have been only three cases reported until now, and all previous cases are thought to be a pigmented variant of seborrheic keratosis which resembled malignant melanoma. Our report is the first case of the acanthotic type of seborrheic keratosis without pigmentation that returned after conjunctival mass excision.

Case Report

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In September 2007, a healthy 72-year-old man was referred to our clinic for evaluation and treatment of a juxta-limbal conjunctival mass, which had recurred on the nasal side of his right eye with about a one-year evolution. A pinkish mass was found over the nasal conjunctiva and invading part of the cornea. The mass did not affect the visual axis (Fig. 1A). The patient stated that the mass had recurred at the same site on the conjunctiva where a previous excision had been performed. There had been no rapid growth over the course of the year. The patient's history indicated that he had undergone conjunctival mass excision on the nasal side of his right eye one year and nine months prior at another hospital, and the pathological diagnosis of the mass at that time was a seborrheic keratosis. He brought us the conjunctival photograph taken before his prior mass excision (Fig. 2).

At initial examination, he presented with a visual acuity of 12/20 in the right eye and 16/20 in the left eye. Both eyes had an intraocular pressure of 9 mmHg. Slit-lamp biomicroscopy revealed a markedly elevated mass without pigmentation, measuring about 9×7 mm with well-defined edges, on the nasal section of the bulbar conjunctiva invading the nasal part of the cornea. The external appearance of the tumor was lobulated with several prominent feeder vessels. The surface looked smooth and there was no keratin-like material overlying the lesion. There was no evidence of a primary acquired melanosis adjacent to the lesion. The patient reported no other prior cutaneous or visceral malignancies and denied any weight loss or other pertinent symptoms. The rest of the

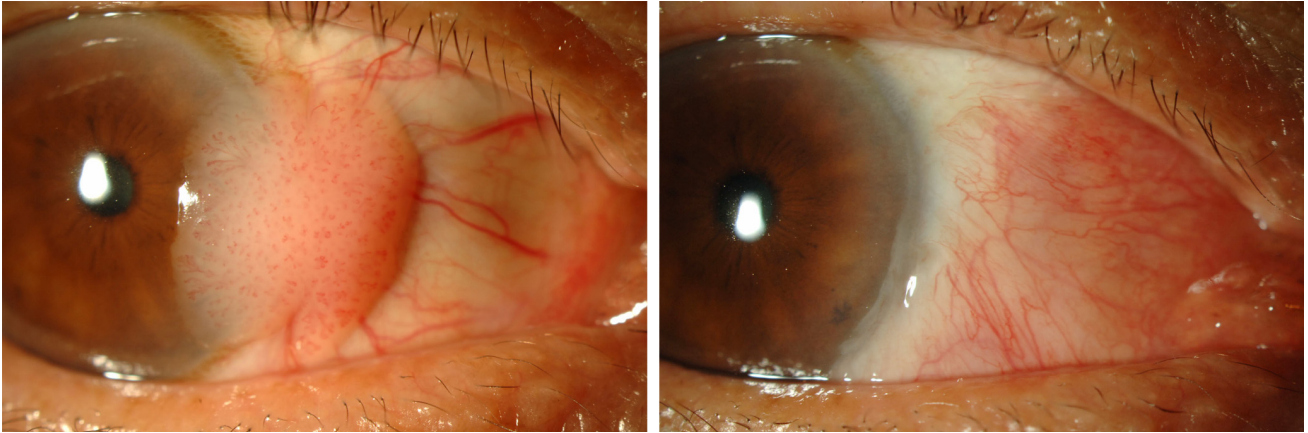


Fig. 1. (A) Photograph showing a juxta-limbal mass over the nasal conjunctiva and invading the cornea. (B) Photograph showing post-operative findings; no mass recurrence was noted.

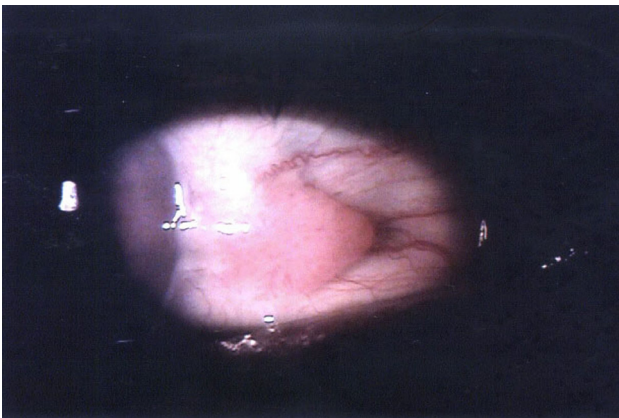


Fig. 2. Photograph from another hospital showing a juxta-limbal mass over the nasal conjunctiva prior to mass excision.

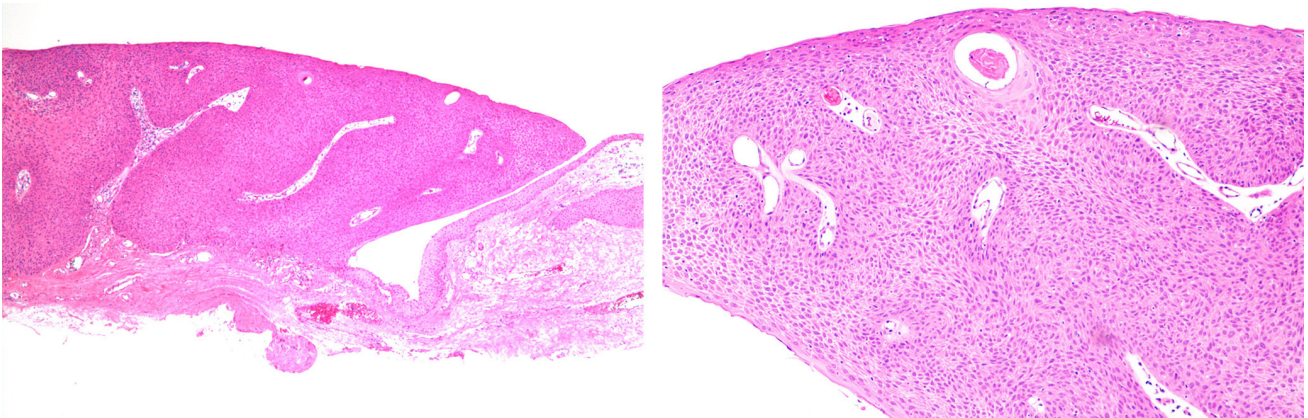


Fig. 3. (A) A histopathologic specimen of the tumor shows acanthosis of uniform basaloid cells with an overlying conjunctival epithelium (H&E, $\times 40$). (B) Pseudohorn cysts containing keratin are seen in the epithelium (H&E, $\times 100$). These histologic features are consistent with seborrheic keratosis.

ophthalmological exploration, including funduscopy, was normal. A complete excision of the lesion was performed.

The histopathological analysis revealed a conjunctival-covering epithelium with papillomatous changes and irregular acanthosis, at the expense of proliferation of basaloid cells (Fig. 3A). In addition, the lesion itself exhibited multiple

keratin-containing pseudohorn cysts (Fig. 3B). The pathologic diagnosis was reported as conjunctival seborrheic keratosis. No mass recurrence was noted at the six-month follow-up after the final mass excision (Fig. 1B).

Discussion

Seborrheic keratosis is a benign epithelial neoplasia that occurs with a relative frequency on the skin of the eyelids and on the face of individuals between 40 and 50 years old.¹⁻⁵ Seborrheic keratosis rarely occurs on the conjunctiva.

To date, only three cases of this affliction have been reported to involve the conjunctiva.⁶⁻⁸ All three cases affected male patients without relevant histories. All previous cases were clinically diagnosed as malignant melanomas, because of the relatively rapid growth on the conjunctiva and the melanin pigment. Conjunctival melanoma is likely to recur and carries an overall mortality rate ranging from approximately 30% to 40%.⁹⁻¹¹ The histopathological findings were similar in all three cases and were characterized by the presence of acanthotic epithelium at the expense of a proliferation of basaloid cells, without cellular malformations, nuclear pleomorphisms, or dysplastic changes.

Our case shares some common characteristics with the previously reported cases, namely patient gender, lack of relevant medical history, and similarly sized lesions at the same location. This patient had been diagnosed with seborrheic keratosis at another hospital. Because the recurrent conjunctival mass revealed different clinical features from those of the previous reports, lacking the previously noted pigmentation, it was difficult to make a clinical impression. The well-demarcated mass with a relatively slow growth indicated that this was more likely to be a benign lesion such as a papilloma, but we could not rule out a malignant lesion due to its history of recurrence and prominent surface feeder vessels. Therefore, we performed a complete excision of the lesion.

Pathologically, the essential change involved in seborrheic keratosis is an accumulation of immature keratinocytes between the basal layer and the keratinizing surface of the epidermis.¹² Histopathologically, seborrheic keratosis is divided into seven major types: acanthotic, reticulated, pigmented, clonal, irritated, hyperkeratotic, and flat.¹³⁻¹⁴ Of these, acanthotic seborrheic keratosis is composed of broad columns or sheets of basaloid or squamoid cells with intervening pseudohorn cysts. There may be varying degrees of hyperkeratosis, papillomatosis, and acanthosis. Our case shares the common characteristics of acanthotic seborrheic keratosis. The previous cases are thought to be the pigmented variant of seborrheic keratosis, which is in every way similar to the usual acanthotic seborrheic keratosis other than the presence of pronounced

epidermal melanin pigment.

In summary, seborrheic keratosis can occur on the conjunctiva, although it is uncommon. Our report is the first case of the acanthotic type of seborrheic keratosis to have recurred after mass excision on the conjunctiva. The benign lesion of seborrheic keratosis tends to clinically mimic malignant lesions such as squamous cell carcinoma or malignant melanoma. Seborrheic keratosis should be included in the list of differential diagnoses of conjunctival masses.

References

1. Duke-Elder S. *System of Ophthalmology*, Vol. XIII, part I. London: Kimpton, 1974;406.
2. Albert DM, Jakobiec FA. *Principles and Practice of Ophthalmology: Clinical Practice*, Vol. 3. Philadelphia: Saunders, 1994; 1716-7.
3. Moschella SL, Hurley HJ. *Dermatology*, 3rd ed. Vol. 2. Philadelphia: Saunders, 1992;1722-3.
4. Yanoff M, Fine BS. *Ocular Pathology: A Text and Atlas*, 2nd ed. Philadelphia: Harper & Row, 1982;241-5.
5. Champion RH, Burton JL, Ebling FJ, eds. *Rook/Wilkinson/Ebling Textbook of Dermatology*, 5th ed. Vol. 2. Oxford: Blackwell Scientific, 1992;1465-7.
6. Tseng SH, Chen YT, Huang FC, Jin YT. Seborrheic keratosis of conjunctiva simulating a malignant melanoma: an immunocytochemical study with impression cytology. *Ophthalmology* 1999; 106:1516-20.
7. Jain AK, Sukhiha J, Radotra B, Malhotra V. Seborrheic keratosis of the conjunctiva. *Indian Journal of Ophthalmology* 2004; 52: 154-5.
8. Guliás-Canizo R, Aranada-Rabago J, Rodríguez-Reyes AA. Seborrheic keratosis of conjunctiva: a case report. *Arch Soc Esp Oftalmol* 2006;81:217-20.
9. Seregard S. Conjunctival melanoma. *Surv Ophthalmol* 1998;42: 321-50.
10. Paridaens ADA, Minassian DC, McCartney ACE, Hungerford JL. Prognostic factors in primary malignant melanoma of the conjunctiva: a clinicopathological study of 256 cases. *Br J Ophthalmol* 1994;78:252-9.
11. Yanoff M, Fine BS. *Ocular Pathology: A Text and Atlas*, 2nd ed. Philadelphia: Harper & Row, 1982;800-4.
12. Tambaos D, Monastirli A, Kapranos N, et al. Detection of human papillomavirus DNA in nongenital seborrheic keratoses. *Arch Dermatol Res* 1995;287:612-5.
13. Cascajo CD, Reichel M, Sanchez JL. Malignant neoplasia associated with seborrheic keratoses: an analysis of 54 cases. *Am J Dermatopathol* 1996;18:278-82.
14. LeBoit PE, Burg G, Weedon D, Sarasain A, eds. *World Health Organization Classification of Tumours: Pathology and Genetics of Skin Tumours*. Lyon: IARC Press, 2006;41-3.