Conjunctival Papilloma

Jason Litak, MD; Vassilios A. Dimitropoulos, MD; Lady C. Dy, MD; Clarence W. Brown, MD; Richard J. Grostern, MD

Conjunctival papillomas are some of the most common tumors of the conjunctiva and are well-described in ophthalmology textbooks. However, they have not be well-recognized by the dermatologic community. These lesions may be encountered by the dermatologist during a full skin examination or they may be the presenting concern of a patient.

Cutis. 2012;89:38-40.

Case Report

A 58-year-old otherwise healthy man presented with an asymptomatic, slowly growing papule near his right medial canthus of 6 years' duration (Figure 1). Upon retraction of the lower eyelid, several large exophytic pedunculated tumors in the right inferior fornix and palpebral regions were discovered (Figure 2). He had a history of a similar lesion in the same location removed 15 years prior.

The lesions were grossly removed via shave biopsy technique with cauterization of each base. All of the tissue was submitted for paraffin-embedded sections. Microscopic examination of the specimen demonstrated a typical frondlike pattern with prominent fibrovascular cores covered by an irregular proliferation of nonkeratinized stratified squamous epithelium containing goblet cells (Figure 3). This histology is characteristic of a conjunctival papilloma.

Four months after removal of our patient's already recurrent lesions, a small re-recurrence of a 2-mm papule was noticed and the patient was referred to ophthalmology.

Comment

Conjunctival papillomas are some of the most common tumors of the eye[1,2] and is well-described in ophthalmology textbooks.[3,4] Lesions of the conjunctiva may be encountered by the dermatologist during a full skin examination or they may be the presenting concern of a patient.

The vast majority of conjunctival papillomas are exophytic pedunculated tumors that have been referred to as squamous cell papillomas or infectious papillomas of the conjunctiva. They most commonly develop in the first 3 decades of life and primarily are located on the palpebral conjunctiva, fornix, caruncle, and bulbar conjunctiva. Exophytic papillomas are strongly associated with human papillomavirus (HPV)–6 and HPV-11.[3,5-7] Sjö et al[6] found that 81% (86/106) of conjunctival papillomas were positive for HPV by polymerase chain reaction and that normal conjunctival tissue was always negative.

An uncommon type of conjunctival papilloma is the limbal papilloma. Limbal papillomas account for 0% to 15% of all conjunctival papillomas.[1,8] They are thought to represent noninfectious squamous neoplasias that develop in middle-aged to older

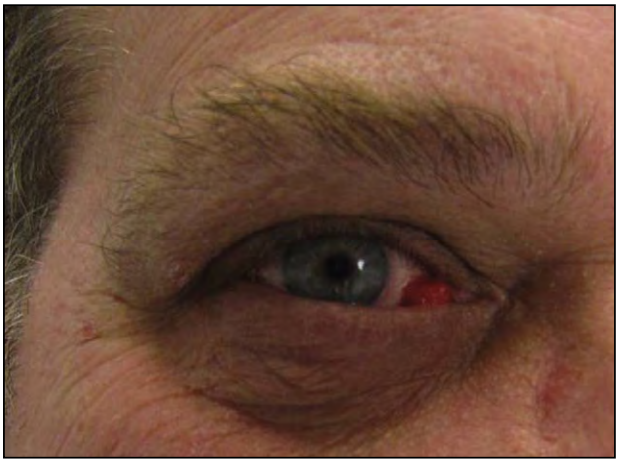

Figure 1. Red papule near the right medial canthus.

From Rush University Medical Center, Chicago, Illinois.
The authors report no conflict of interest.
Correspondence: Jason Litak, MD, Rush University Medical Center, Department of Dermatology, 1725 W Harrison St, Ste 264, Chicago, IL 60610 (jason.litak@gmail.com).

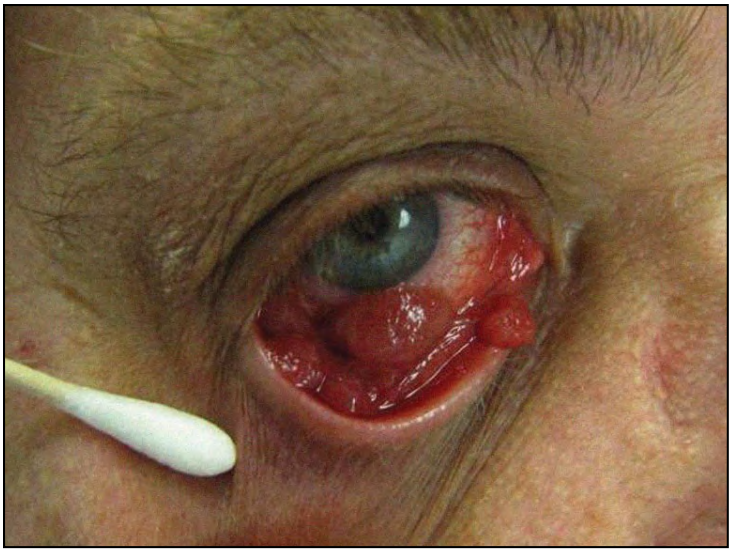

Figure 2. Several large exophytic pedunculated tumors in the right inferior fornix and palpebral regions.

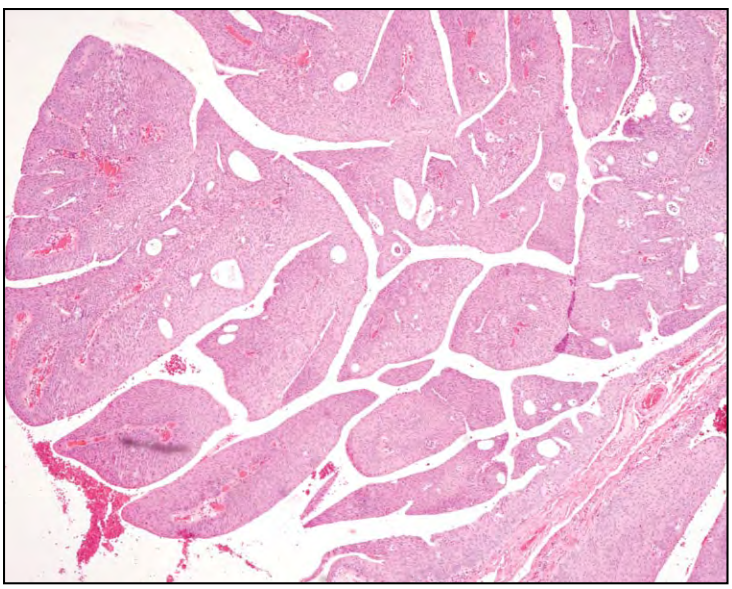

Figure 3. Typical frondlike pattern with prominent fibrovascular cores covered by an irregular proliferation of nonkeratinized stratified squamous epithelium containing goblet cells (H&E, original magnification ×10).

individuals and are most frequent on the bulbar conjunctiva and at the limbus.[3,5]

Conjunctival papillomas are benign tumors. Dysplasia is found in a minority of cases. In a study of 245 exophytic papillomas, Sjö et al[8] reported mostly light dysplasia in only 6% of cases. Carcinoma rarely develops in a conjunctival papilloma.

The differential diagnosis for tumors of the conjunctiva is quite broad. It includes both benign and malignant tumors of epithelial, connective tissue, vascular, peripheral nerve, immunologic, and nevomelanocytic origin, as well as amyloidosis, infection, and even metastatic cancer. Suspicion for malignancy should be high in growing or symptomatic lesions. Conjunctival papillomas rarely may be associated with Lhermitte-Duclos disease or Cowden disease. It is prudent to establish the diagnosis with either a biopsy or a referral to an experienced ophthalmologist.

Treatment of conjunctival papillomas typically involves excision or cryotherapy. Small lesions may be left untreated, as they often spontaneously resolve.[3,9] It has been reported that conjunctival papillomas recur in 6% to 27% of cases.[1,7,8] Treatment of recurrent papillomas includes topical mitomycin, interferon alfa, dinitrochlorobenzene, oral cimetidine, and CO_2 laser.[3,5] Because of the potential for damage to ocular structures, the

treatment of conjunctival papillomas is best reserved for an ophthalmologist.

Conclusion

Gross eye lesions may be an incidental finding on full skin examination and periocular lesions may be submitted to the dermatopathologist. Therefore, it behooves the dermatologic community to be familiar with common lesions in this location, such as the conjunctival papilloma.

REFERENCES

1. Ash JE. Epibulbar tumors. *Am J Ophthalmol*. 1950;33:1203-219.
2. Santos A, Gómez-Leal A. Lesions of the lacrimal caruncle. *Ophthalmology*. 1994;101:943-949.
3. Kanski JJ. Ocular tumors and related conditions. In: Kanski JJ, eds. *Clinical Ophthalmology: A Systemic Approach*. Oxford, United Kingdom: Butterworth Heinemann; 2007:510-564.
4. Conlon MR, Alfonso EC, Starck T, et al. Tumors of the cornea and conjunctiva. In: Albert DM, Jakobiec FA, eds. *Principles and Practice of Ophthalmology*. Philadelphia, PA: Saunders; 1994:276-291.
5. Bailey RN, Guethlein ME. Diagnosis and management of conjunctival papillomas. *J Am Optom Assoc*. 1990;61:405-412.
6. Sjö NC, von Buchwald C, Cassonnet P, et al. Human papillomavirus in normal conjunctival tissue and in conjunctival papillomas: types and frequencies in a large series. *Br J Ophthalmol*. 2007;91:1014-1015.
7. McDonnell JM, McDonnell PJ, Mounts P, et al. Demonstration of papillomavirus capsid antigen in human conjunctival neoplasia. *Arch Ophthalmol*. 1986;104:1801-1805.
8. Sjö N, Heegaard S, Prause JU. Conjunctival papilloma. a histopathologically based retrospective study. *Acta Ophthalmol Scand*. 2000;78:663-666.
9. Wilson FM 2nd, Ostler HB. Conjunctival papillomas in siblings. *Am J Ophthalmol*. 1974;77:103-107.

CONTINUED FROM PAGE 37

2. Yawn BP, Saddier P, Wollan PC, et al. A population-based study of the incidence and complication rates of herpes zoster before zoster vaccine introduction. *Mayo Clin Proc*. 2007;82:1341-1349.
3. Straus SE, Ostrove JM, Inchauspé G, et al. NIH conference. varicella-zoster virus infections. biology, natural history, treatment, and prevention. *Ann Intern Med*. 1988;108:221-237.
4. Harpaz R, Ortega-Sanchez IR, Seward JF, et al. Prevention of herpes zoster: recommendations of the advisory committee on immunization practices (ACIP). *MMWR Recomm Rep*. 2008;57:1-30.
5. Ragozzino MW, Melton LJ 3rd, Kurland LT, et al. Population-based study of herpes zoster and its sequelae. *Medicine (Baltimore)*. 1982;61:310-316.
6. Oxman MN, Alani R. Varicella and herpes zoster. In: Fitzpatrick TB, Austen KF, Wolff K, et al, eds. *Fitzpatrick's Dermatology in General Medicine*. 4th ed. New York, NY: McGraw-Hill; 1993:2543-2572.