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A Conjunctival Papillary Tumor in a 77-Year-Old Woman

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A Slitlamp examination

B OCTA

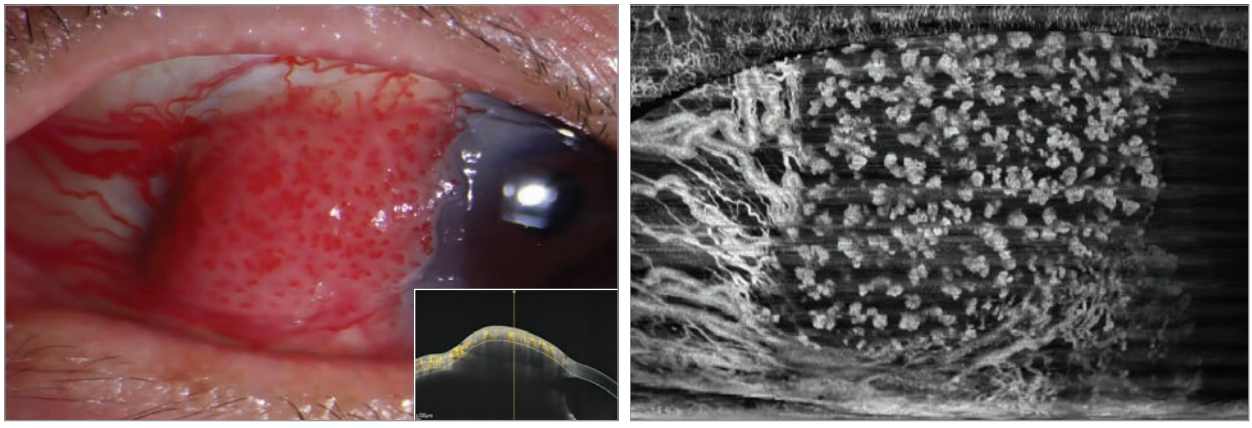

Figure 1. A, Slitlamp examination visually showed the neoplasm in the patient's left eye, and optical coherence tomography angiography (OCTA) showed the shape of tumor vessels (lower right). B, OCTA demonstrated the invasion depth of vessels of this tumor.

A 77-year-old woman presented to the ophthalmology department with a 5-year history of a painless neoplasm in her left eye. Her medical history included gastric antral ulcers and reflux esophagitis. She had no history of tumors and no family history of ocular disease. On initial examination, her visual acuity was 20/40 OD and 20/50 OS. Intraocular pressures were 17 mm Hg in the right eye and 20 mm Hg in the left eye as measured with noncontact tonometry. Pupils were round and reactive, without a relative afferent pupillary defect. Slitlamp examination showed an isolated papillary tumor on the limbal conjunctiva, with prominent conjunctival blood vessels extending to the tumor (**Figure 1**A). The findings of both the anterior segment and fundus examinations were normal. Optical coherence tomography angiography (OCTA) demonstrated blood vessels of the neoplasm in the shape of popcorn (Figure 1B) and blood vessels extending beneath the surface of sclera (lower right of Figure 1A).

WHAT WOULD YOU DO NEXT?

A. Observation and periodic monitoring

B. Surgical excision with conjunctival autograft

C. Surgical excision with topical mitomycin therapy

D. Surgical excision with radiotherapy

CME Quiz at jamacmelookup.com

Diagnosis

Conjunctival squamous cell carcinoma

What to Do Next

C. Surgical excision with topical mitomycin therapy

Discussion

Conjunctival squamous cell carcinoma (CSCC) is one of the most common types of conjunctival malignant neoplasm arising from stratified squamous epithelium.[1,2] CSCC usually occurs in middle-aged or older persons, as well as in younger patients with an immunodeficiency.[2] Clinically, this slow-growing tumor typically appears as a solitary and painless nodule.[2] This patient presented with a 5-year history of a solitary, slow-growing papillary neoplasm. Conjunctival papilloma (CA) is an acquired benign tumor and generally progresses slowly.[3] It originates from the stratified squamous epithelium and typically manifests as solitary tissue.[4] Based on morphology and medical history, it could be relatively difficult to distinguish CSCC from CA in this patient. Mucoepidermoid carcinoma of the conjunctiva is a particularly aggressive malignant neoplasm with unclear boundaries, composed of both mucus-producing and epidermoid cells.[5] This lesion has distinct boundaries, making it unlikely to be mucoepidermoid carcinoma of the conjunctiva. Pathological analysis is usually essential to obtain a definitive diagnosis. Histopathological examination of this patient revealed that a portion of the conjunctival neoplasm was squamous cell carcinoma, while the remainder was papilloma (**Figure 2**).

OCTA examination of the patient demonstrated the depth of invasion of the conjunctival tumor's blood vessels. Examination indicated that the blood vessels of this tumor might reach sclera, which supported the hypothesis that this might be a malignant tumor. It could be difficult to differentiate CSCC from CA in this case without the results of preoperative OCTA examination. Therefore, OCTA examination could contribute to distinguishing between malignant and benign tumors through the visualization of vessel depth. OCTA can also evaluate the blood supply of ocular-surface abnormalities. Further studies are needed to explore the accuracy of OCTA for the diagnosis of ocular surface disease.

Complete surgical excision is warranted for therapy of conjunctival tumors. CSCC confers a risk of recurrence and metastasis. Considering the high recurrence rates, adjuvant therapies are commonly used, and these therapies could augment surgical excision in patients with CSCC.[6] Adjunctive treatments mainly include cryotherapy, topical mitomycin therapy, conjunctival autograft, and radiotherapy.[7]

Observation and periodic review (choice A) might be an option when the neoplasm is small, in its early stages. This tumor is relatively large; therefore continued observation without treatment is probably not appropriate. Surgical excision with conjunctival autograft (choice B) would be insufficient for this patient, considering the depth of the invasion of the vessels observed on OCTA and biopsy results. Surgical excision with radiotherapy (choice D) would not be preferred because radiotherapy might induce various complications, which may persist in the long term and would decrease quality of life.[6] Surgical excision with topical mitomycin therapy (choice C) is recommended, as it has been documented to have an excellent prognosis in these situations.[8] Adjunctive use of mitomycin could reduce the prevalence of recurrences compared with no adjunctive therapy (5.9% vs 66.7%).[9] However, mitomycin therapy may be accompanied by irritative symptoms.

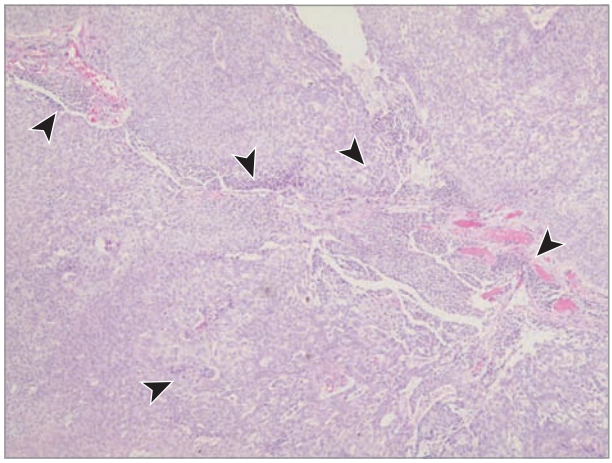

Figure 2. Histopathological examination of the conjunctival tumor. The approximate areas of squamous cell carcinoma, which contained pathological mitosis cells, are marked with arrowheads.

Patient Outcome

This patient underwent complete surgical excision with topical mitomycin therapy. At a follow-up visit 1 month after surgery, there was no ocular recurrence or systemic metastasis.

ARTICLE INFORMATION

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