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Eyelid chalazion or not?

Case

A 56-year-old male noted swelling of his right lower eyelid (RLL) in January 2017. This was initially diagnosed as a stye and treatment with warm compresses was advised. In February 2017, the stye was unchanged and antibiotic–steroid combination ointment was added. In March 2017, the lesion became firm and nodular. Biopsy elsewhere revealed eyelid squamous cell carcinoma (SCC), well-differentiated. The patient was referred for our management. On examination, his visual acuity was 20/40 OD and 20/20 OS. There was a firm, painless mass in the RLL [Fig. 1a], measuring 20 mm in diameter and involving full-thickness eyelid. There was no orbital invasion on magnetic resonance imaging [Fig. 1b].

What is Your Next Step?

A. Posterior lamellar resection of the eyelid
B. Full-thickness resection of the eyelid with frozen section control
C. Orbital exenteration
D. Stereotactic radiotherapy.

Correct Answer: D.

Full-thickness resection of the eyelid with frozen section control of margins.

Findings

Following resection, histopathology revealed a mass arising from the conjunctiva with a moderately differentiated invasive carcinoma showing predominant squamous differentiation and keratinization [Fig. 1c]. Glandular areas with goblet cells [Fig. 1d, arrows] were identified within the tumor nests and were highlighted with PAS and Alcian blue stains. The squamous component of the lesion strongly expressed cytokeratin 17 (CK17), while the goblet cells and glandular component of the lesion expressed CK7. These findings were compatible with mucoepidermoid carcinoma, now referred to as adenosquamous carcinoma by the World Health Organization.[1]

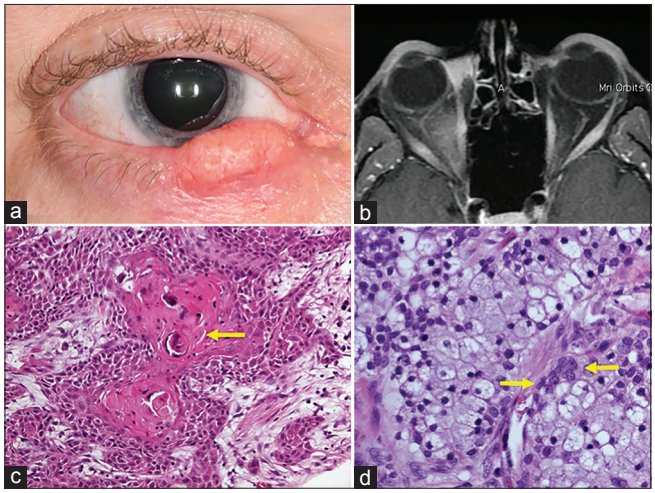

Figure 1: Firm mass in the right lower eyelid (a), measuring 20 mm in diameter and involving full-thickness eyelid. There was no orbital invasion on magnetic resonance imaging (b). Histopathology showed moderately differentiated invasive carcinoma (c) with predominant squamous differentiation and keratinization. Glandular areas with goblet cells (d, arrows) were identified within the tumor

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Diagnosis

Conjunctival adenosquamous carcinoma

Discussion

This malignancy demonstrated full-thickness eyelid invasion, so choice B, and not A, would be most appropriate. There was no evidence of orbital invasion, so choice C is not correct, and this mass was surgically resectable so choice D is not considered.

Conjunctival adenosquamous carcinoma is rare, accounting for <1% of all conjunctival tumors.[2] This malignancy develops in the conjunctiva as a gray-white mass, typically in older patients and with an aggressive course. Histopathologically, this tumor is characterized by epidermoid and mucin-producing malignant (goblet) cells. This carcinoma can demonstrate CK7 positivity (CK7+), typically lost in conventional conjunctival SCC that usually expresses only CK17. Rankin *et al*. emphasized that CK7+ staining in an epibulbar squamous dysplasia/carcinoma and coexistent intracellular mucin (highlighted with Alcian blue or mucicarmine stains) should raise consideration for adenosquamous carcinoma.[3] Wide surgical resection is advocated for management of this malignancy.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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