Case Report

Slow-growing large pleomorphic adenoma of ectopic lacrimal gland tissue in the upper eyelid

Adel H. Alsuhaibani, MD

Abstract

A few cases of pleomorphic adenoma of an ectopic lacrimal gland involving the deep orbit and lateral canthus have been previously reported. A 75-year-old female with a slow-growing, large pleomorphic adenoma arising from ectopic lacrimal gland tissue in the left upper eyelid is described in the present case report.

Keywords: Pleomorphic adenoma, Ectopic, Lacrimal gland

Introduction

Ectopic lacrimal gland tissue is a rare condition. Previous studies have described its presence in the orbit, in the lids, on the adnexa, and in the globe. Ectopic lacrimal gland clinical presentation varies depending on the location and pathological process developing in the ectopic tissue. Pleomorphic adenoma, which may occur in the ectopic lacrimal gland, presents as a mass. This case report describes a patient with a large upper eyelid mass that has been slowly growing over a 20-year period as a result of pleomorphic adenoma of ectopic lacrimal tissue localized in the upper eyelid.

Case report

A 75-year-old female with slowly progressive, non-painful swelling of the left upper eyelid that had first appeared 20 years earlier was referred to our hospital. The swelling, which had been initially observed in the central part of the eyelid, extended to the lateral part of the eyelid. During the past 5 years, the swelling had become so severe that it completely covered the left eye. For over 5 years, the patient has had diabetes mellitus, which has been well controlled on insulin treatment. On examination, her best corrective visual acuity in the right eye was 20/200. The vision in the left eye was counting fingers at 3 feet. There was no relative afferent pupil defect. Ocular motility was normal in both eyes. There was no proptosis or hypoglobus in either eye. A large, non-tender mass was present in the left upper eyelid with normal skin (Fig. 1A). Dense brown cataracts were present in both eyes. The view of the fundus was hazy in both eyes because of the cataracts. An orbital computed tomography scan showed a large, lobulated, soft-tissue mass lesion (3.5 x 3 cm) with smooth borders on the left anterior orbit and left upper eyelid (Fig. 2A). The posterior part of the mass abutted the left globe and the main lacrimal gland. The mass showed minimal enhancement following contrast injection. The left globe, optic nerve, and extraocular muscles appeared normal. Magnetic resonance imaging of the orbit was not performed.

The patient underwent excisional biopsy of the mass through the left upper eyelid crease incision along with the removal of excess left upper eyelid skin. The whole mass was anterior to the levator aponeurosis and was removed, leaving the capsule intact. The mass had no connection with any orbital structure, including the lacrimal gland. The
histopathology report was consistent with pleomorphic adenoma with the presence of a biphasic population of epithelial and mesenchymal cells. The epithelial cells were glandular and occasionally squamous, and the stroma was myxoid (Fig. 3). There was no evidence of mitotic figures or necrosis. Postoperatively, the patient did well, and no sign of recurrence at 12 months’ follow-up was found (Figs. 1B and 2B).

Discussion

Pleomorphic adenoma is the most common epithelial tumor of the lacrimal gland and has a great tendency to develop in the orbital lobe of the lacrimal gland. In extremely rare cases, the accessory lacrimal glands of Krause and Wolfring may harbor the tumor. The accessory lacrimal glands of Krause and Wolfring are located immediately adjacent to the fornix of

Figure 1. (A) Clinical photograph shows large mass involving the left upper eyelid and totally covering the eye. (B) One year after removal of the mass with no clinical evidence of recurrence.

Figure 2. (A) An axial orbital computed tomography (CT) scan demonstrates a large lobulated soft tissue mass lesion with smooth borders on the left anterior orbit and left upper eyelid. The posterior part of mass abutted the left globe as well as the main lacrimal gland (arrow). (B) An axial CT scan shows no evidence of recurrence with normally appearing main lacrimal gland (arrow) in the left side one year after removal of the mass.

Figure 3. (A) The mass after removal and it measured 3.5 × 3 cm. (B) Epithelial component shows tubules with a double row of epithelial cells. The stroma is myxoid (Hematoxylin–eosin, original magnification ×100).
the upper eyelid and in the upper border of the tarsus midway between the ends of the tarsal glands, respectively.

At 8 weeks’ gestation, the lacrimal gland develops from the basal conjunctival cells as solid buds (20 mm stage). These buds gradually migrate and eventually become lodged in the lacrimal gland fossa. Following birth, the tissue continues to grow, with complete differentiation occurring only after 3 years of age. Similarly, the accessory lacrimal glands develop as ectodermal evaginations of the conjunctiva. A portion of the lacrimal gland may become separated from the main mass and develop independently.

In the literature, three patients were reported to have pleomorphic adenoma arising in the ectopic lacrimal gland. One pleomorphic adenoma was detected in the subconjunctival space in the lateral fornix, and the other two were deep in the orbit. Complete removal, with the capsule remaining intact, is the curative treatment for pleomorphic adenoma arising from lacrimal gland tissue.

In this case report, the patient was identified as having pleomorphic adenoma in the ectopic lacrimal gland tissue. The mass was found in the upper eyelid, anterior to the levator aponeurosis, and was clearly separated from the orbital lobe of the lacrimal gland. Very slowly growing eyelid mass was one of main findings in our patient. This growth pattern seems similar to the growth pattern of pleomorphic adenoma arising from the main lacrimal gland.

References