Bowen disease of the conjunctiva treated by Mohs resection

Introduction

Bowen disease of the eyelid is only sparsely reported in the English language literature. This article presents a rare example of ocular and adnexal Bowen disease successfully treated by Mohs micrographic surgery. The clinical presentation, pathology and management options are discussed.

Discussion

Bowen disease affecting the eye was first reported by Gill and Harris in 1957. Awan (1978) later reported a similar case of Bowen disease of the conjunctiva in an individual with a history of both trauma and chronic lymphocytic leukaemia. Similarly, Sobha et al (1999) reported Bowen disease of the eyelid in an immunosuppressed renal transplant patient. Altered immunological status and trauma have thus been postulated as aetiological factors but neither appear to be pertinent to the present case. It is more commonly seen in sun-exposed areas of the body and it is therefore extremely uncommon on the inner surface of the upper eyelid as seen in this case.

John Templeton Bowen (1912) classically described precancerous dermatoses and his name has since become eponymously linked with such lesions. Cutaneous lesions are classically circumscribed, scaling and erythematous and often initially confused with other skin pathologies. Bowen disease, also known as squamous cell carcinoma in situ, represents cytologic atypia confined to the epidermis and approximately 10% develop into invasive squamous cell carcinoma. It is because of this malignant potential that such lesions require early recognition by hospital clinicians and prompt onward referral for treatment.

Bowen disease of the eye and adnexae is rare and so evidence-based treatment recommendations do not exist. Mohs micrographic surgery, where available, is an increasingly accepted mode of treatment and is highly effective, the 5-year recurrence rate in an Australian cohort of 270 cases with cutaneous head and neck lesions being only 6.3% (Leiovitch et al, 2005). In addition, the technique maximizes preservation of normal eyelid tissue, thus minimizing the extent of subsequent lid augmentation or reconstruction procedures.

Other options include cryotherapy, topical cytotoxic application, e.g. 5-fluorouracil and photodynamic therapy with 5-aminolaevulinic acid. A novel experimental treatment is imiquimod which stimulates cell-mediated immunity and local cytokine production, although this application is unlicensed in the UK (Brannan et al, 2005). BJHM

Case Report

A previously healthy 61-year-old Caucasian woman was referred with a recurrent right upper eyelid lesion. She had first presented to her local ophthalmic service with a 6-month history of an eyelid lump which was initially diagnosed as a presumed chalazion and treated by incision and curettage.

On examination visual acuities were 6/6 in either eye and anterior and posterior segment examination was unremarkable. Eversion of the right upper lid revealed a 4 mm lesion arising from the marginal palpebral conjunctiva around the lateral third of the eyelid (*Figure 1*) and a shave biopsy was performed. This revealed enlarged and atypical keratinocytes with numerous mitoses, consistent with Bowen disease.

The patient had no ophthalmic history, was a controlled hypertensive (atenolol 25 mg), and had no risk factors for immunosuppression and no history of lid trauma, other skin cancers or excess sun exposure.

The lesion was surgically excised using the Mohs method, frozen section histology confirming clear margins with complete removal. The site was closed directly without the need for lid augmentation or reconstruction and the appearance 2 weeks post-procedure was functionally and cosmetically acceptable (*Figure 2*). At 6-month follow up there was no clinical evidence of recurrence.

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Leiovitch I, Huilgol SC, Selva D, Richards S (2005) Cutaneous squamous carcinoma in situ (Bowen's Disease): treatment with Mohs micrographic surgery. *J Am Acad Dermatol* **52**(6): 997–1002

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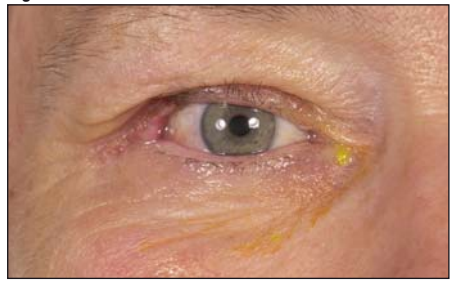
Figure 1. View of Bowen lesion on margin of eyelid (superior to the pupil).

Figure 2. External adnexal view after Mohs excision.



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