Full-Thickness Eyelid Biopsy for Presumed Carcinoma In Situ of the Palpebral Conjunctiva

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SUMMARY

A biopsy-proven diagnosis of carcinoma in situ of the palpebral conjunctiva should always evoke doubt. This change may represent pagetoid spread of an occult sebaceous gland carcinoma. The conjunctival changes may be subtle, preceding the formation of any obvious mass in the eyelid. In this situation, full-thickness eyelid biopsy should be considered as a possible alternative to diagnosis accurately the disease process.

The authors present two cases where biopsy of chronically inflamed palpebral conjunctiva was at first diagnosed as carcinoma in situ. Full-thickness eyelid biopsy was performed at varying times following the conjunctival biopsy. Sebaceous gland carcinoma was then diagnosed in each case. The pathogenicity of carcinoma in situ differs markedly from sebaceous gland carcinoma. A palpebral conjunctival biopsy diagnosed as carcinoma in situ should arouse suspicion that a more serious pathologic process may be present. Full-thickness eyelid biopsy may be appropriate under such circumstances.

INTRODUCTION

The diagnosis of carcinoma in situ of the palpebral conjunctiva in the absence of a limbal lesion should arouse the clinician’s suspicions, as this diagnosis may be erroneous, being confused with pagetoid change in the conjunctiva from occult sebaceous gland carcinoma.

Sebaceous gland carcinoma is an aggressive tumor which can metastasize to distant sites. It is important to differentiate it from carcinoma in situ which has a lower degree of pathogenicity. Bonuij et al reported a 17% rate of orbital extension from eyelid sebaceous gland carcinoma necessitating exenteration; 13.5% of his series of patients died of probable or proved metastases. Early diagnosis and treatment of this tumor will decrease morbidity and mortality.

Two cases are presented in which biopsy of conjunctival change was misinterpreted as squamous carcinoma in situ. Full-thickness eyelid biopsy was performed at varying lengths of time following the conjunctival biopsy. Sebaceous gland carcinoma was then diagnosed in each case.

CASE PRESENTATIONS

CASE 1

A 71-year-old Caucasian woman was first seen by one of the authors (R.W.) in July 1976, because of itching and mettering of the right eye for two years. The positive clinical findings included a mild right upper eyelid ptosis, a chronic blepharitis, and an unusual tarso-conjunctival appearance. Biopsy from the right tarso-conjunctiva was interpreted as carcinoma in situ. Excision of the involved conjunctiva was then performed. The patient recovered uneventfully, but returned to the clinic in eight months with trichiasis of the right upper eyelid. Biopsies were repeated, demonstrating

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what was thought to be recurrent in situ carcinoma. Cryotherapy to the involved conjunctiva was administered. The patient was not seen again for one and a half years. She then presented with a fungating upper eyelid tumor which also involved the lateral canthal region. Biopsies were again taken. The initial diagnosis was invasive squamous cell carcinoma; however, an amended pathologic report indicated a diagnosis change to meibomian gland carcinoma with pagetoid spread to overlying eyelid skin. Retrospective review of the previous two conjunctival biopsies confirmed the presence of pagetoid change consistent with the diagnosis of sebaceous carcinoma, rather than the original interpretation of carcinoma in situ. The patient subsequently underwent a right subtotal orbital exenteration. Her postoperative course was uneventful. She returned to the care of her local physician.

CASE 2

This 68-year-old Caucasian woman had a history of chronic left conjunctivitis for two years. She had been treated for this problem by several ophthalmologists. Prior to her referral to one of the authors (J.L.), a superior palpebral conjunctival biopsy was performed. The pathologic diagnosis was carcinoma in situ. At the time of referral, her examination revealed a subtle thickening of the lateral two thirds of the upper eyelid margin (Figure 1). The upper tarsal conjunctiva was thickened and erythematous with several white plaque-like excrescences on its surface (Figure 2).
FIGURE 5: Tumor excised with frozen section control of margins demonstrating extent of tumor invasion.

There was no preauricular adenopathy. A conjunctival biopsy was repeated and interpreted as squamous carcinoma in situ. It was then elected to do a full-thickness eyelid biopsy. A pathologic diagnosis of sebaceous gland carcinoma arising out of a hair follicle gland was made (Figures 3 & 4). The involved areas of upper eyelid, lateral canthus, and lower eyelid were excised under frozen section control (Figure 5). Appropriate eyelid reconstructive techniques were then used to restore eyelid function. The patient had no evidence of recurrence for the past year.

DISCUSSION

Sebaceous gland carcinoma of the eyelid can arise from the glands of Zeis, located around the cilia at the lid margin, and from the meibomian glands. The incidence of these tumors is low. They comprise about 1% of malignant eyelid neoplasms. Their presentation varies. Clinically, they may give the impression of a cutaneous horn, chalazion, chronic conjunctivitis-blepharitis, lacrimal gland tumor, basal cell carcinoma, or nevus. A misdiagnosis of melanoma may also be made, as one of the authors (J.B.) discovered. Due to the low occurrence rate and the ability of the tumor to masquerade as other entities, the tumor is often not correctly diagnosed until it has reached an advanced stage of growth.

The cases presented here represent a difficult diagnostic problem. Each case presented with a conjunctival lesion which, upon biopsy, was misinterpreted as squamous cell carcinoma in situ, rather than the pagetoid change associated with meibomian gland carcinoma. The diagnosis of carcinoma in situ should always arouse suspicion if a limbal lesion is not present.

It is evident that it can be difficult to differentiate histopathologically between squamous cell carcinoma in situ and sebaceous gland carcinoma with pagetoid spread. In both cases presented, the specimens were at first erroneously diagnosed as squamous cell carcinoma in situ. The clinician must be alert to this fact, such that, if the clinical circumstance presents itself where there is a Bowenoid-like change in the palpebral conjunctiva, with normal limbal conjunctiva, a full-thickness eyelid biopsy may be appropriate. Fat stains and permanent sections should be examined to be certain that one is not dealing with an occult sebaceous gland carcinoma.

ACKNOWLEDGMENT

The authors would like to thank Raymond Caffrey, M.D., for his persistence in making the pathologic diagnosis on one of our cases.

REFERENCES