Case Report

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Meibomian Gland Carcinoma of the Eyelid: A Rare Case Report

L Nanda[1], Sanjana S M[2], V K (Brig) Srivastava[3], Shivakumar M[4], Jensy Reshma Dsouza[5]

Senior Resident, Department of Ophthalmology, Rajarajeswari Medical College & Hospital, Assistant Professor, Department of Ophthalmology, Rajarajeswari Medical College & Hospital, Professor, Department of Ophthalmology, Rajarajeswari Medical College & Hospital, Professor and HOD, Department of Ophthalmology, Rajarajeswari Medical College & Hospital, Post Graduate student, Department of Ophthalmology, Rajarajeswari Medical College & Hospital

Abstract

The sebaceous gland carcinoma is a very rare, highly malignant tumor of the eyelid arising from sebaceous glands of the eyelid such as meibomian glands, glands of Zeis, and sebaceous glands of the caruncle. The tumor is more commonly seen in elderly individuals and more common in the upper eyelid where the meibomian glands are numerous. We present a case of meibomian gland carcinoma of the left upper eyelid in a 90-year-old man who came with a history of a slow growing swelling in the upper eyelid. Biopsy confirmed meibomian gland carcinoma. Tumor was removed by wide excision and reconstruction of the lid was done by Tenzel`s semilunar flap.

Key words: Lid reconstruction, Meibomian gland, Sebaceous gland carcinoma, Tenzel's semilunar flap, Upper eyelid

INTRODUCTION

The sebaceous gland is a lethal highly malignant slow-growing tumor of the eyelid arising from meibomian glands located in the tarsal plate, glands of Zeis, sebaceous glands of caruncle, and periocular skin. It is third most common malignancy of the eyelid and the incidence rate is about 1-1.5%.[1] Prevalence is more in elderly individuals, usually females with a predilection in the upper lid where meibomian glands are numerous. Clinical diagnosis is very important in early stage and more difficult as it mimics chalazion or blepharoconjunctivitis. Intraepithelial spread and the ability to cause skipped lesions gives a special feature from other lid tumors.

The upper eyelid is the site of origin in about two-thirds of all cases, but sebaceous gland carcinoma may arise from any of the periocular structures previously mentioned[2] and may have a variety of clinical appearances.

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The carcinoma may exhibit multicentric spread to the other eyelid, conjunctiva or corneal epithelium. This neoplasm may spread through the canaliculus to the lacrimal excretory system and even to the nasal cavity.[3]

Dysplasia and anaplasia of the sebaceous lobules in the meibomian glands are exhibited by sebaceous gland carcinoma, with associated destruction of tarsal and adnexal tissues. Typically, sebaceous gland carcinoma shows highly pleomorphic cells arranged in lobules or nests with hyperchromatic nuclei and vacuolated (foamy or frothy) cytoplasm due to a high lipid content. Histologically, sebaceous gland carcinoma may resemble the appearance of squamous cell carcinoma. However, the cytoplasm in sebaceous gland carcinoma tends to be more basophilic compared with the eosinophilic appearance of squamous cell carcinoma.

CASE REPORT

A 90-year-old man presented with a history of swelling in the left upper eyelid of 6 months duration that was gradually progressive and painless initially. Later he developed pain, yellowish discharge, and bleeding from the lesion past 2 weeks. The patient also gave the history of cataract surgery in the left eye 2 years ago.

Corresponding Author: Dr. Nanda L, # 14, 5th A Main 2nd Cross SVG Nagar, Nagarabhavi Main Road, Bengaluru - 72, Karnataka, India. E-mail: nanda.shivakumar@rediffmail.com

On examination, the patient had an ulcerative swelling in the left upper eyelid extending horizontally from the midpoint of the upper eyelid to the lateral canthus. The swelling extended vertically about 12 mm from upper eye lid margin to the lateral aspect of the lower fornix. The tumor involved 1 mm of the upper palpebral conjunctiva, and the surface was irregular with areas of necrosis, yellowish discharge, and active bleeding. The upper lid margin was distorted and was associated with a loss of eyelashes (Figure 1).

On slit lamp examination, there was diffuse corneal opacity of leukomatous grade, and other details were not visible. Perception of light was negative, and B-scan revealed a total retinal detachment in the left eye.

Visual acuity in the right eye was counting fingers 2 m with no pinhole improvement. There were grade three nuclear scleroses, and the fundus appeared normal.

On systemic examination, there was no regional or systemic lymphadenopathy.

A meibomian gland carcinoma was clinically diagnosed. A biopsy was done, sent for histopathological examination that revealed meibomian gland carcinoma (Figure 2).

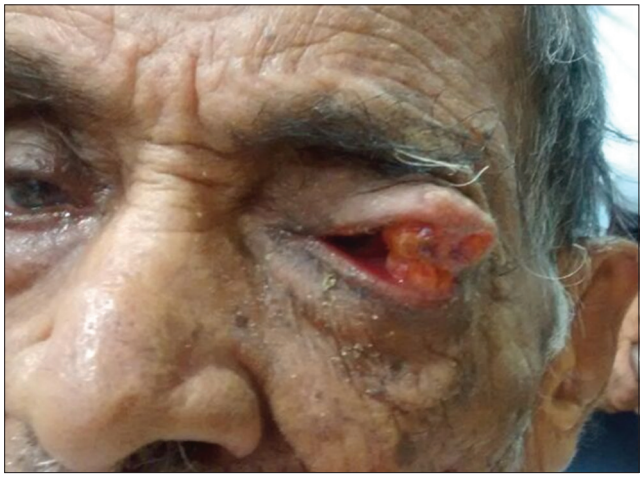

Figure 1: Left upper eyelid mass lesion

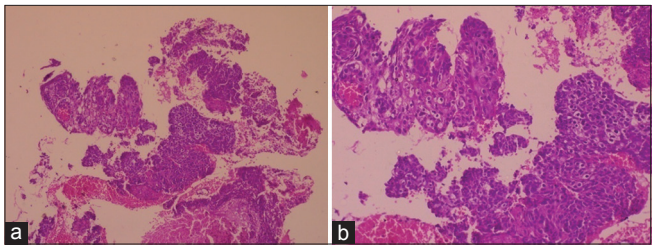

Figure 2: (a and b) Vacuolated cytoplasm and hyperchromatic pleomorphic nuclei

Magnetic resonance imaging of the orbits was done which showed well-defined soft tissue over the left orbit. There was no intraocular extension, underlying bones appeared normal, and there was no evidence of regional (cervical) lymphadenopathy.

Wide excision of the tumor was done, which included 5 mm of normal tissue margins. Reconstruction of the lid was done by using Tenzel's semilunar flap. The excised tissue was again sent for histopathological examination which confirmed meibomian gland carcinoma. The patient was followed up after 2nd and 4th week, and the flap was well taken up.

DISCUSSION

Meibomian gland carcinoma is a slow-growing tumor arising from the meibomian glands. It is the third most common malignancy in the eyelid with an incidence of 1-5.5% of eyelid malignancies.[1] Some studies show an increased incidence of sebaceous gland carcinoma in the Asian population. The tumor has a poor prognosis when compared to other eyelid malignancies because of delayed diagnosis, as it is frequently mistaken for blepharoconjunctivitis or a chalazion.[4-6] Therefore, any recurrent chalazion or unilateral blepharoconjunctivitis in elderly individuals with features like a loss of lashes should be biopsied.

Treatment of sebaceous gland carcinoma is primarily surgical. Surgical treatment may range from a local excision to orbital exenteration. Radical surgical excision with frozen section control by a standard method or Mohs micrographic surgery is the most common and effective method of treatment.

An excision of 4-5 mm of normal tissue carries very good prognosis.[7] Approximately, 30% of SGCs recur after resection.[8] Other modalities of treatment are mitomycin C, cryotherapy, and radiotherapy.[9] Radical neck dissection is required if there is involvement of regional lymph nodes. Distant metastasis requires adjuvant chemotherapy and radiotherapy.

The mortality rate is 5-10% because of delay in making diagnosis and delay in the treatment. The distant metastasis carries 25% of mortality rate. The poor prognostic factors are involvement of upper or both eyelids and, tumor size of 10 mm or more. Others include a duration of symptoms more than 6 months (mortality 38%), poorly differentiated tumors, infiltration into blood vessels and lymphatics, orbital extension, multicentric origin, and finally pagetoid spread. Tumors <6 mm have an excellent prognosis.[9]

CONCLUSION

Early diagnosis and treatment may decrease the long-term morbidity and extend the survival rate of such patients.

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