Case Report

Sebaceous Gland Carcinoma of the Lower Eyelid

Jameel A. Burney, Syed Shahab Ali

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See end of article for authors affiliations

Correspondence to:
Jameel Ahmed Burney
A-23 Saima Villas, Block B
North Nazimabad
Karachi

A 44 year old male presented with a nodular growth on the left lower eyelid mimicking a chalazion for the last six months. An excisional biopsy of the lesion along with reconstruction of lower eyelid was performed. Histopathological examination revealed the lesion to be sebaceous gland carcinoma (SGC). Two years postoperatively, no recurrence or metastasis has been found.

SGC is a rare eyelid tumor. It is highly malignant with a mortality rate second only to malignant melanoma[1]. It represents 0.2% to 0.7% of all eyelid tumors and 1% to 5.5% of eyelid malignancies[2]. Although sebaceous glands are found throughout the body, SGC is found most frequently in the ocular region, which accounts for 75% of cases[3]. The most common site of origin is the meibomian glands on the tarsus of the eyelids, leading to the term meibomian gland carcinoma. However, this neoplasm can occur in other sebaceous glands such as in the caruncle, the glands of Zeis, and in the eyebrow[4]. SGC is more frequent in women than in men and affects an older population, usually in the 6th to 7th decade of life[5,6]. It has predilection for upper lids[7,8]. SGC of the eyelid is frequently misdiagnosed clinically and histopathologically[9]. The clinical presentation is variable and masquerades benign and inflammatory conditions[10]. The most common presentations are lid mass, blepharitis, blepharoconjunctivitis, meibomianitis, ocular cicatricial pemphigoid, and recurrent chalazion. The tumor mimics hitopathologically with basal cell carcinoma, squmous cell carcinoma and malignant melanoma. The tumor may spread regionally into the lacrimal, secretory and excretory systems, to regional lymph nodes, and rarely disseminate hematogenously[11]. Complete surgical excision along with biopsy as early as possible must be planned to avoid dissemination. However, SGC remains a threatening disease, which can lead to death in 9% and to a mutilating exenteration in 23% of patients[1].

CASE REPORT

A 44 year old male school teacher visited the ophthalmic out patient department of our hospital with a painless, large left lower lid mass for 6 months. The mass had started as a small nodule, but gradually increased in size without any history of discharge and bleeding.

On examination, the best corrected visual acuity was 6/6. The left lower eyelid had a nodular mass measuring 1.3 x 1 x 0.8cm, pink to brown in colour protruding posterior to the lid margin near the lower punctum (Fig. 1 & 2). The skin area showed multiple hairs along with two well-defined ulcerated areas each measuring 0.5 cm. It had non-homogenous soft to firm consistency. The adjacent 2 mm skin showed induration, however rest of the lower lid skin was normal and movable. The lid margin was normal with no loss of eyelashes. The left upper lid was normal. On everting the lower lid, palpebral conjunctiva showed mild papillary congestion. Slit lamp examination of the left eye showed congested bulbar conjunctiva in the inferior part. Rest of the anterior and posterior segment examination was normal. The right eyelid, anterior segment, pupillary reflex and fundus examination were normal. The extra ocular movements of

both the eyes were normal and orbital bony margins were clinically intact. The preauricular, submandibular or any other lymph nodes were not palpable. There was no history of trauma, radiotherapy or any previous eye operation. Thorough systemic examination was conducted by senior physician and was found insignificant. All routine blood investigations along with liver and renal functions were also normal.

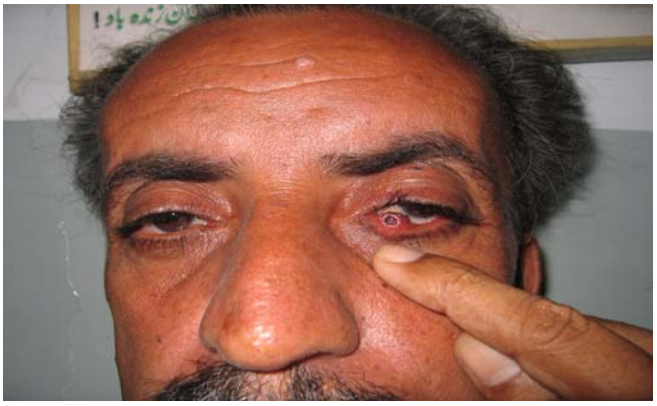

Fig.1: Left eye. Patient with lower eye lid SGC

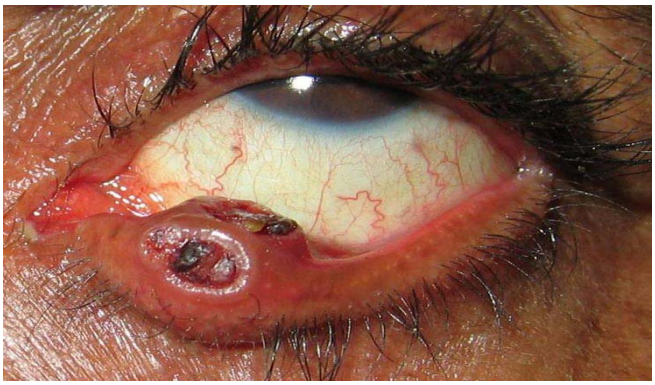

Fig. 2: Left eye. Patient with lower eye lid SGC (close up view)

A malignant growth was suspected. Therefore careful wide surgical excision of the mass with lid reconstruction was planned. After informed consent was taken full thickness lid and the tumor were excised along the mark. As the resultant lid defect was approximately 30-40%, the lid was repaired with direct closure. The conjunctiva was re-apposed with 6-0 ethilon continuous suture. Orbicularis oculi muscle and skin were sutured in separate layers using 6-0 vicryl. Lateral canthotomy was done to avoid lid shortening. Eye was padded with antibiotic ointment and excision biopsy sample was sent for histopathological examination. The histopathological examination of biopsy confirmed a malignant tumor i.e. SGC with the comments that the tumor appears completely excised. Histopathological section (Fig. 3) shows two cell populations. The smaller basaloid cells showing brisk mitosis and moderate nuclear and cytological atypia. The larger cells with abundant foamy cytoplasm are showing sebaceous differentiation.

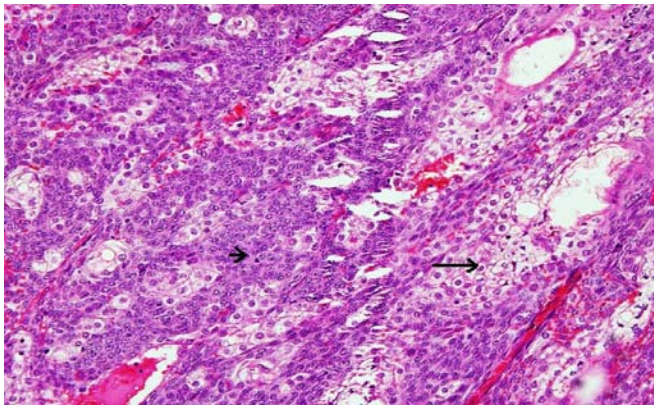

Fig. 3: Left eye. Histalogical section. The picture shows dual population of cells. The larger clear cells with vacuolated cytoplasm (long arrow) show sebaceous differentiation. The basaloid cells (small arrow) are lying towards the periphery of the larger cells. (H&E, 20X)

Fig.4: Left eye. 1st post-operative day with lower eye lid

The lower lid healed smoothly and rapidly without any cosmetic blemish or any abnormality of the lid margin (Fig. 4) in our patient. There was no evidence of any recurrence on subsequent follow-up in two years. The management of this large lid mass was successful due to early diagnosis and proper surgery technique.

DISCUSSION

Carcinoma of the sebaceous glands, though rare tumor, is of sufficient importance to ophthalmologists as they occur more frequently on the eyelids and at the same time highly malignant with a mortality rate second only to malignant melanoma[1]. They are more often seen in females, around 6th-7th decade and occurs more frequently in the upper lid due to its abundant distribution of sebaceous gland[5-8].

However in this case report, the patient is male, younger in age group and the tumor involves lower eyelid instead of the upper eyelid. SGC are commonly misdiagnosed because of varied history and clinical presentation. Typically, there is an insidious onset of a painless firm eyelid mass. This mass easily can appear clinically as a recurrent or chronic chalazion. SGC also can mimic unilateral blepharoconjunctivitis, meibomianitis, ocular cicatricial pemphigoid, basal or squamous cell carcinoma, orbital inflammation, or superior limbic keratoconjunctivitis[10]. Such a clinical picture leads to misdiagnosis as our earlier diagnosis in this case was a benign condition. Any recurrent chalazion especially with loss of eyelashes or unilateral chronic blepharitis or superior limbic keratoconjunctivitis should raise the suspicion and warrant biopsy[7]. They are best managed by wide surgical excision with the margins extending well beyond the palpable tumor because of the diffusely infiltrating character of neoplasm[8]. In our case, surgical excision was complete with histologically clear tissue margins. Radiotherapy can be considered only for those patients who are too ill for surgery or have refused surgery. In case of orbital invasion, exenteration may have to be considered in advanced cases. After the surgical excision of tumor, lid reconstruction is also equally important[12,13]. For the defect < 40% or 1/3 of lid as in our case, a direct closure in layers is advised[13]. Generally, these patients respond well to the surgical excision. Because of early diagnosis and wide surgical excision no recurrence and metastasis has been found during a period of two year.

CONCLUSION

SGC can masquerade as an inflammatory condition such as blepharitis, blepharoconjunctivitis, meibomianitis, ocular cicatricial pemphigoid, and recurrent chalazion. Prompt wide surgical excision biopsy should be performed and it can lead to a better outcome and higher survival rates.

Author's affiliation

Dr. Jameel A. Burney
Chief Ophthalmologist
Department of Ophthalmology
Sindh Govt. Qatar Hospital, Orangi Town
Karachi

Dr. Syed Shahab Ali
Ophthalmologist
Department of Ophthalmology
Sindh Govt. Qatar Hospital, Orangi Town
Karachi

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