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Case Report

Meibomian gland carcinoma of the lower eyelid: a rare case

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ABSTRACT

Meibomian gland carcinoma (MGC) is a rare but highly malignant slow growing tumor of the eyelid. MGC usually arises from meibomian gland located in the tarsal plate although rarely it can originates in the gland of zeis, sebaceous gland of caruncle, and periocular skin. MGC is more common in cases of elderly females. Upper eyelid is more commonly affected where the meibomian glands are more. Early diagnosis is very important but in most of the cases the diagnosis is delayed as it mimics chalazion or blepharo-conjunctivitis. This leads to inappropriate treatment and increase in morbidity and/or mortality. Special feature of this carcinoma is that it spread intra-epithelial and causes skipped lesions.

Keywords: Eyelid, Meibomian gland carcinoma, Malignant

INTRODUCTION

Meibomian gland carcinoma (MGC) arise from upper eyelid in about two-third of all cases, but may arise from other periocular structures. This is the third most common malignancy of the eyelid with the incidence of 1-1.5%.[1] These tumors may have a variety of clinical appearances. This carcinoma exhibit multicentric spread to the other eyelid, conjunctiva, or corneal epithelium. Also this may spread through the canaliculus to the lacrimal excretory system and even to the nasal cavity.

Dysplasia and anaplasia of the sebaceous lobules in the meibomian gland 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.

Here, we are presenting a case of MGC and discuss the clinical behavior, diagnosis and the treatment.

CASE REPORT

A 70 years old female patient presented to us with a huge mass in the right lower eye lid. The swelling was noticed in the right lower eyelid for two and half years. Initially the swelling was small for which the patient consulted local doctor and was diagnosed to have chalazion and, was given medication for the same, like warm compress and topical antibiotic. But with medication there was no improvement, in fact the swelling increased in size and reached up to the present size of 15×10 mm. When the swelling increased in size rapidly, the patient was referred to tertiary center for further management. At the time of presentation to us, the mass was almost involving the half of right lower eyelid without any pain, ulceration, bleeding, discharge or watering of the eye. On examination of the right lower eyelid, a nodulo-proliferative swelling of

size approximately 15×10 mm extending superiorly from the lower eyelid margin and inferiorly underneath the palpebral conjunctiva with a nodular surface and ill-defined margins and firm in consistency (Figure 1). There was increased vascularity over the surface of the swelling. The margin appeared thickened and irregular with loss of any eyelashes. Systemic and family history were noncontributory. Regional lymph nodes were not clinically palpable. Oncologist opinion was also taken for the same. Magnetic resonance imaging (MRI) scan of orbits was done to see extension of tumor. Provisional diagnosis of MGC was done.

Figure 1: Right lower eyelid nodulo-proliferative swelling of size approximately 15×10 mm.

Surgery was planned and proceeded with wide local excision of the lesion with skin, tarsal plate and conjunctiva with a free 4 mm margin all around the mass. The mass with margins were sent for frozen section biopsy, and only after getting negative result the resulting defect was covered with Hughes's flap which was taken from upper eye lid of right eye. Patient was comfortable in the postoperative period with mild pain, lid edema (Figure 2). Histopathology revealed sebaceous gland carcinoma with free margins all around (Figure 3 and 4). Second stage operation was done after 6 weeks of the initial surgery, where the flap was excised. Patient was on regular follow-up for recurrence for last 3 years (Figure 5).

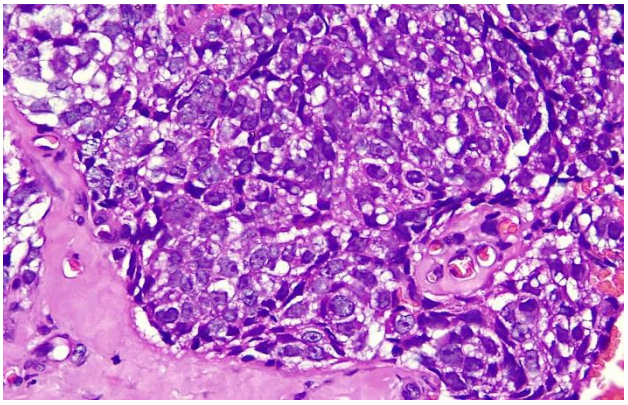

Figure 2: Hughes's flap in postoperative period.

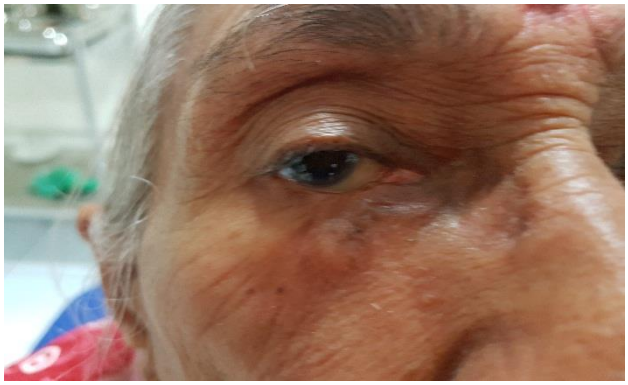

Figure 3: Scanner view H and E 400x shows lining of stratified squamous epithelium with lobules of tumour tissue in the sub epithelial stroma.

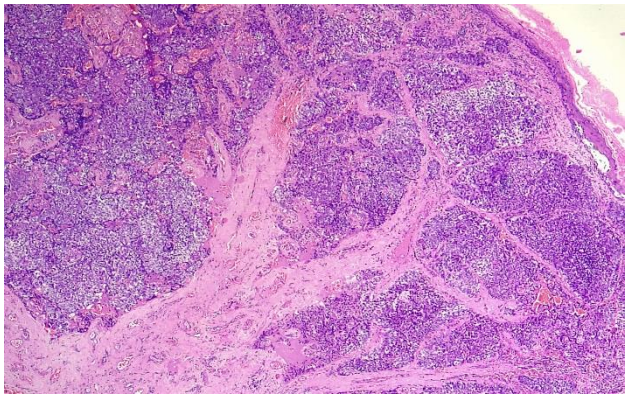

Figure 4: H and E 4000x shows tumour cells having foamy cytoplasm, pleomorphic nuclei with prominent nucleoli.

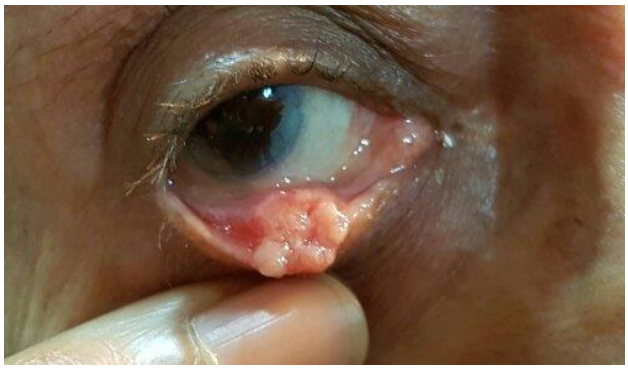

Figure 5: Functional and cosmetic lid.

DISCUSSION

MGC needs to be diagnosed early, not only because of its masquerading tendency but also because of its much higher prevalence in the Indian sub-continent in contrast to Western world.[2] Prognosis is regarded as poor compared to most other malignant eyelid tumors. This malignancy has a high mortality rate, second to malignant melanoma.[3] Tumors with size exceeding 10 mm are associated with a

poor outcome.[4] The case which we described here has most of the features suggestive of a poor prognosis.

A similar case of giant MGC was also reported in a report, but without proper treatment, the patient passed away. Authors discussed the natural course of the disease including metastasis and importance of adequate early treatment.[5] MGC is the third most common malignancy of the eye lid. As it is mistaken for blepharitis or chalazion, there is delay in diagnosis and also, it has a poorer prognosis as compared to other eyelid malignancies.[6-8] Surgery is the primary treatment of choice and it may vary from local excision to orbital exenteration. An excision of 4-5 mm of normal tissue will have a good prognosis.[9] Recurrence is around 30% after local excision.[10]

Because of delay in diagnosis and delay in treatment, there is increased chances of mortality, which is around 5-10%. Poor prognostic factors are upper eyelid involvement or both eyelid involvement, and tumor size of 10 mm or more, duration of symptoms more than 6 months, poorly differentiated tumors, infiltration of blood vessels and lymphatics, orbital extension, and lastly pagetoid spread.

CONCLUSION

MGC is a rare tumor, which masquerades as benign ocular conditions and hence, early diagnosis and treatment, mainly surgical excision may decrease the long term morbidity and extend the survival rate. Patients with MGC must be followed up frequently as the tumor has a fast growth potential.

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