CASE REPORT

Ocular sebaceous carcinoma

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Abstract

Sebaceous gland carcinoma (SGC) of eyelids is unique and is very rare, slow growing and commonly found in elderly population with female predisposition. Sebaceous carcinoma is more common on the upper eyelid. We report the case of an 80-year-old man who underwent repeated full thickness excision of right eye upper lid for recurrent sebaceous carcinoma of right eye upper lid. During operation, tumor was found extending into fornix and orbit (upper). Biopsy report confirmed sebaceous carcinoma.

Introduction

Among eyelid malignancies, sebaceous gland carcinoma (SGC) of eyelids is unique due to its multifocal origin and pagetoid spread.1 Sebaceous glands are located in the periocular skin, caruncle and eyebrow skin follicles. The tumor is very rare, slow growing and commonly found in elderly population with female predisposition. Mean age at diagnosis is mid-sixties; however, the tumor has been reported in children as well.2 Sebaceous gland carcinoma of the eyelid is reported as one of the rare eyelid malignant neoplasm in the Western literature with a reported incidence of 1 to 3 percent.3 The reported incidence is much higher in Indians and Asians, ranging from 28% to 33% of all malignant eyelid neoplasms.4,5 The tumor often exhibits an aggressive biological behavior with local recurrence following excision and local and distant metastasis.

The cell of origin of SGC may not be certain in 50-60% of cases. It usually arises from the meibomian glands which are modified sebaceous glands located in the tarsal plate. Occasionally it may arise from the glands of Zeiss or sebaceous glands in caruncle.5 SGC is more common in the upper eyelid due to presence of more number of meibomian glands.6 However in some cases both the eyelids are affected and also affects caruncle.1,7 Immunohistopathology revealed that the cells occur in irregular lobular masses with distinctive invasiveness. The cytoplasm is pale, foamy, and vacuolated. Molecular biology of SGC suggests dysplasia if there is no expression of p53 or invasiveness, when there is hyper expression of p53. In general, there are two main pathological presentations of the SGC - nodular and spreading. The nodular form is a discrete, hard, immobile nodule commonly located in upper tarsal plate. the tumor is yellowish due to lipid. Any chalazion of unusual consistency or its
recurrence after incision and curettage more than three times should undergo full thickness resection and histological examination. Occasionally, it may have a multicentric origin.

The spreading variety of SGC occurs in pagetoid form with diffuse intraepithelial infiltration of the lid skin.\textsuperscript{8,10} This causes diffuse thickening of lid margin, loss of eyelashes, and resembles chronic blepharoconjunctivitis. The pagetoid spread may involve both eyelids and conjunctival epithelium. Differential diagnosis for SGC includes, congenital sebaceous gland hyperplasia which is common on faces or scalp or acquired sebaceous gland hyperplasia which is common on face or forehead. Adenoma sebaecum of Pringle is another diagnosis to consider. It is found in tuberous sclerosis and commonly located in the nasolabial fold and cheek areas. Sebaceous adenoma is common on the eyebrows and eyelids. SGCs are often inadequately treated at first intervention. Different treatment modalities include local excision, orbital exenteration, radical neck dissection, radiation, or chemotherapy depending on the stage of the tumor at the time of presentation.\textsuperscript{11}

Surgical treatment may range from a local excision to orbital exenteration. Radical surgical excision by either a standard method or Moh’s micrographic surgery is the most common and effective method of treatment.\textsuperscript{12} The overall mortality rate is 5–10%.

**Case report**

An 80- year-old man underwent repeated right eye upper lid full thickness tumor excision and suturing for recurrent sebaceous carcinoma of upper lid of right eye, two years apart. Intra operatively tumor was found extending into fornix and orbit (upper). Biopsy report confirmed sebaceous carcinoma.

![Image](image_url)

**Figure 1.** Hematoxylin and eosin stained section (x10) of the excised tumor reveals sebaceous cell carcinoma with atypical dark pleomorphic sebaceous cells
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**Figure 2.** Hematoxylin and eosin stained section of the excised tumor (x40). Cells with atypical dark hyper chromatic nuclei with vacuolated cytoplasm and foreign body giant cells are seen.

Surgical excision was performed to remove the involved tissues. Histopathology revealed skin with subcutaneous areas containing carcinomatous foci with sebaceous differentiation. (Figures 1 & 2) Superficial ulceration and necrosis were present. Oedematous surrounding areas had chronic inflammatory cell infiltrates and foreign body giant cells reaction, but excision margins were free of tumor (Figure 3). Ampiclox, Combiflam, Rantac, Septidine were administered to the patient during the course of treatment and patient was referred for radiotherapy.

**Figure 3.** Hematoxylin and eosin stained section (x40) of margins of eyelid wedge specimen. Normal sebaceous glands are seen and the section has no tumor.
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Conclusion

Sebaceous gland carcinoma is a rare eyelid tumor comprising less than 1% of all eyelid malignancies. Intraepithelial invasion in sebaceous gland carcinoma is noted to occur in 41–80% of cases.\(^1\) Diagnosis requires biopsy of the abnormal area and conjunctival map biopsies in the presence of intraepithelial invasion.\(^11,15\)

References