

Giant destructive basal cell carcinoma of the eyelid

Mrinal Gupta

Sudhaa Skin Centre, Tawi Vihar, Sidhra, Jammu, India

Abstract

Basal cell carcinoma (BCC) is the most common eyelid neoplasm comprising of about 90% of malignant tumors of eyelids. It is a slowly growing tumor and does not metastasize but can invade orbital and nearby intracranial structures. Histological subtypes of periocular BCC are nodular, infiltrative, sclerosing, micronodular, keratotic, basosquamous and superficial. We present a case of periocular BCC in an 83-year-old female which involved both upper and lower lids and medial canthus and had caused ulceration and ectropion of the lower lid with persistent watery eye. Histopathological examination of the lesion was consistent with nodular BCC. The patient was advised surgical excision of the tumor but the patient refused and was lost to follow-up.

Key words

Basal cell carcinoma, eyelid tumor, ectropion, nodular basal cell carcinoma.

Introduction

Basal cell carcinoma (BCC) is the most common malignant neoplasm of the skin with a lifetime risk of 12%, and accounts for 90-95% of malignant eyelid tumors.¹ It is a slowly growing tumor and does not metastasize but can cause significant destruction and disfigurement by invading surrounding tissues. The most common sites of involvement of periocular BCC are the lower eyelid, the medial canthus, the upper eyelid and the lateral canthus respectively.² It is usually a slowly enlarging tumor and symptoms are rare. It can cause severe deformity by causing tissue destruction leading to symptoms like trichiasis, ectropion and painful red eye.³ Herewith, we present a case of periocular BCC in an 83-year old female which involved both upper and lower lids and medial canthus and had caused ulceration and ectropion of the lower lid with persistent watery eye.

Case Report

An 83-year old female presented with a six-year history of a gradually progressive, painless nodular lesion over the lower lid of the left eye. Gradually, over time the lesion had progressed to involve the medial and lateral canthus and the upper lid too and for the last six months, the patient was having complaints of pain and burning sensation of the eye along with persistent redness and watery discharge.

On examination, the lesion was nodular, skin colored with a few pigmented areas, measuring about 3.5 X 1 cm, involving both the upper and lower lids and both canthi. The surface of the lesion was telangiectatic and irregular. Near the medial canthus, there was ulceration and crusting with the presence of pigmented nodules (**Figure 1**). Lower lid showed complete loss of eyelashes with ectropion. Ocular examination showed congestion of bulbar and palpebral conjunctiva. Bilateral intraocular pressures were within the normal limits and anterior segment examination showed bilateral subcapsular cataract. Rest of cutaneous

Address for correspondence

Dr Mrinal Gupta,
Sudhaa Skin Centre,
Tawi Vihar, Sidhra,
Jammu, India 180019.
Email: drmrinalgupta@yahoo.com



Figure 1 Nodular telangiectatic mass involving both the lids and canthi with ectropion and ulceration

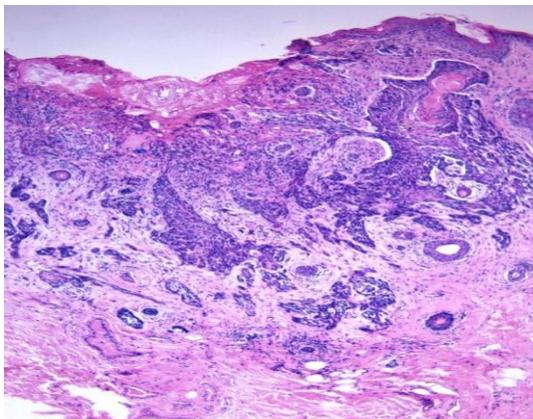


Figure 2 Histopathology showing irregular nests of basal cell epithelioma cells surrounded by dense inflammatory fibrous tissue (H&E 40X).

examination revealed signs of solar damage like multiple seborrheic keratoses and solar elastosis. There was no significant lymphadenopathy and the systemic examination was normal. Histopathological examination of the lesion revealed the presence of solid islands of neoplastic cells displaying basaloid differentiation with characteristic retraction spaces between tumor islands and surrounding stroma, thus confirming the diagnosis of nodular BCC (**Figure 2**).

Owing to extensive involvement and the presence of ectropion, the patient was advised a complete surgical resection of the lesion with reconstruction of the lower lid, but the patient refused and was lost to follow-up.

Discussion

BCC is the most commonly seen malignant tumor of the eyelid. Although, the rate of the local spread and metastasis is less compared to the other tumors.³ The histogenesis of BCC is unclear. Either pluripotent germ cells in the deepest layer of the epidermis, or basal cells of pilosebaceous structures have been proposed to develop into carcinoma. The development of BCC in skin damaged by prolonged exposure to sunlight, ionizing radiation, chronic ulcers, burns, or sebaceous nevi, has been well documented. The predisposition of the lower lid to develop BCC has also been attributed to prolonged photodamage.⁴

Histological subtypes of periocular BCC are nodular, infiltrative, sclerosing, micronodular, keratotic, basosquamous and superficial.² Histological subtypes are important in predicting prognosis as infiltrative, sclerosing, and basosquamous subtypes tend to progress more aggressively while nodular and superficial subtypes progress gradually. The rate of the recurrence and orbital invasion is also more in basosquamous and sclerosing types.⁵

Complete excision of BCC with a tumor-free surgical margin is the principal primary treatment with a cure rate above 98%. The prognosis is worse once the tumor invades the orbit. Mohs micrographic surgical excision (MMS) is the recommended surgical modality owing to a better marginal clearance achieved with this technique. A recent study of 342 patients with periocular BCC treated by MMS with a 5-year follow-up showed 0% and 7.8% recurrence rates for primary and recurrent tumors, respectively.⁶

The non-surgical treatment includes cryotherapy, photodynamic therapy, radiation, topical 5-fluorouracil and topical imiquimod, but non-surgical management has the disadvantage of absence of histopathologic confirmation for correct diagnosis of tumor

type or for complete tumor eradication.⁷ Intra-arterial infusion of chemotherapeutic drugs provides selective and increased perfusion of antineoplastic agents into the tumor, and local control of BCC using chemotherapy has been reported. Large and unresectable BCC in the head and neck region had an 83% response rate when treated with intra-arterial chemotherapy using a combination of vincristine, bleomycin, methotrexate, and cisplatin.⁸ Radiotherapy is another optional adjuvant treatment of excised BCC in the medial canthal region, with a response rate better than 90%.

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