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Case Report

Periorbital squamous cell carcinoma with orbital invasion

Navneet Jain, Priyank Pathak*

Department of Surgery, Swami Rama Himalayan University, Jollygrant, India

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***Correspondence:**
Dr. Priyank Pathak,
E-mail: priyank56pathak@yahoo.co.in

ABSTRACT

Periocular squamous cell carcinoma is an aggressive tumor with incidence for eyelid SCC has been reported to be between 0.09 and 2.42 cases per 100 000 population. SCC is the second most common eyelid malignancy, accounting less than 5% of malignant eyelid neoplasms. Orbital invasion is a serious complication of aggressive or neglected lesions, which has been reported to occur in 2.5% of all eyelid basal and squamous cell carcinomas. The aim of our study is to report a case of a 58-year male with periorbital squamous cell carcinoma referred to our clinic because of non-healing ulcer over the left frontal region. This case study reports a complication of orbital invasion with emphasis on the review of literature.

Keywords: Squamous cell carcinoma, Eyelid, Orbital invasion

INTRODUCTION

Squamous cell carcinoma (SCC) is an invasive epithelial malignancy showing keratinocytic differentiation. It is the second most common malignant neoplasm of the eyelids, comprising 5-10% of all eyelid malignancies.[1] Clinical diagnosis can be suspected clinically on the basis of the appearance of the lesion. The diagnosis is confirmed by obtaining a biopsy and examining the histopathology.

The incidence for eyelid SCC has been reported to be between 0.09 and 2.42 cases per 100 000 population.[2] Extrinsic risk factors include ultraviolet light/actinic damage and exposure to arsenic, hydrocarbons, radiation, or immunosuppressive drugs.[3] Intrinsic risk factors include albinism, pre-existing chronic skin lesions and genetic skin disorders such as xeroderma pigmentosum and epidermodysplasia verruciformis.

Periocular squamous cell carcinoma is an aggressive tumor, characterized by perineural involvement and an overall rate of regional lymph node metastases reported to range from 10% to as high as 20%-25%.[4]

Orbital exenteration is a disfiguring procedure that results in a significant deformity, which poses a reconstructive challenge, especially in elderly patients with significant comorbidities.[5]

CASE REPORT

The aim of our study is to report a case of a 58 year male with per orbital squamous cell carcinoma referred to our clinic because of non-healing ulcer over the left frontal region. The lesion was of about 3x4cms in the left frontal region of the orbit (Figure 1).

CECT Face was done which is suggestive of erosion of anterior wall of left frontal sinus and supero-lateral wall of left orbit (Figure 2 and 3). A lesion was surgically removed by wide local excision and enucleation of eye was done and histologically examined (Figure 4).

Figure 1: The preoperative picture of the patient with lesion seen over the left eyelid.

Histopathologic examination revealed a squamous cell carcinoma. Post-operative period was uneventful (Figure 5). The accurate diagnosis and correct management of the malignant eyelid tumors always requires histological examination.

Figure 2: A CECT face suggestive of erosion of anterior wall of left frontal sinus.

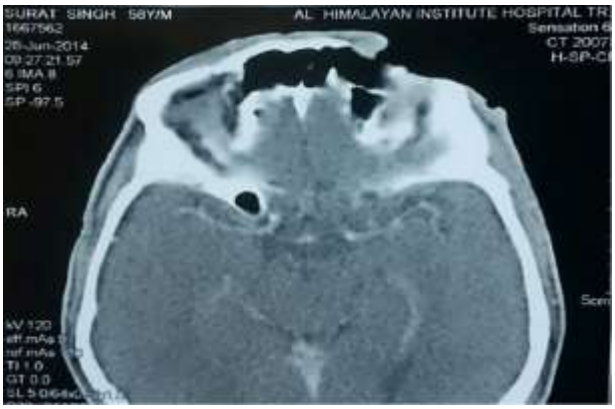

Figure 3: CECT Face with erosion of anterior wall of left frontal sinus and supero-lateral wall of left orbit.

Figure 4: intra-operative scalp rotation flap after orbital exenteration.

Figure 5: Postoperative results of the surgery.

DISCUSSION

Eyelid SCC is a relatively uncommon, but potentially fatal disease. It is responsible for considerable morbidity; however, if detected early and treated adequately, the prognosis is generally excellent and death and disability can be reduced. The clinical presentation varies and histological examination is required for accurate diagnosis. Any suspicious lesion occurring on the eyelids should therefore be excised or biopsied. Perineural spread is an adverse prognostic sign, which requires consideration of postoperative prophylactic radiotherapy. Orbital invasion is a rare complication, but if recognized early can be treated effectively with exenteration and central nervous system dissemination can be prevented. All patients with eyelid SCC should be advised of the risk of recurrent or new tumors and encouraged to attend regular follow up examinations.[1]

In a retrospective study done by Donaldson, to review the clinical features, management, and outcomes of surgical treatment of eyelid squamous cell carcinoma (SCC), they concluded perineural invasion was found in four patients, and orbital invasion in three patients. Recurrence occurred in one patient. Treatment was by complete excision with histological confirmation of clear margins. Exenteration was required in three patients

Orbital invasion is a serious complication of aggressive or neglected lesions, which has been reported to occur in 2.5% of all eyelid basal and squamous cell carcinomas.[6] It usually presents with the characteristic signs of an ulcerated eyelid lesion associated with ocular motility restriction and requires orbital exenteration for cure.

With its perineural invasion capacity, periorbital squamous cell carcinoma (SCC) may easily invade orbital structures. When SCC invades the orbital musculature or the orbit itself, orbital exenteration, one of the most disfiguring operations on the face, is required.[7]

Adverse prognostic factors associated with secondary orbital invasion are previous recurrences, longer duration of lesion, larger lesion size, and presence of PNI.[8]

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REFERENCES

1. Donaldson MJ, Sullivan TJ, Whitehead KJ, and Williamson RM, Squamous cell carcinoma of the eyelids, British Journal of Ophthalmology. 2002;86(10):1161-5.
2. Cook BE, Bartley GB. Epidemiologic characteristics and clinical course of patients with malignant eyelid tumours in an incidence cohort in Olmsted County, Minnesota. Ophthalmology. 1999;106:746-50.
3. Maclean H, Dhillon B, Ironside J. Squamous cell carcinoma of the eyelid and the acquired immunodeficiency syndrome. Am J Ophthalmol. 1996;121:219-21.
4. Thosani MK, Schneck G, Jones EC. Periocular squamous cell carcinoma. Dermatologic Surgery. 2008;34(5):585-99.
5. Nassab RS, Thomas SS, Murray D. Orbital exenteration for advanced periorbital skincancers: 20 years experience. J Plast Reconstr Aesthet Surg. 2007;60(10):1103-9.
6. Howard GR, Nerad JA, Carter KD, et al. Clinical characteristics associated with orbital invasion of cutaneous basal cell and squamous cell tumours of the eyelid. Am J Ophthalmol. 1992;113:123-33.
7. Karabekmez FE, Selimoglu MN, Duymaz A, Karamese MS, Keskin M, Savaci N. Management of neglected periorbital squamous cell carcinoma requiring orbital exenteration. J Craniofac Surg. 2014;25(3):729-34.
8. Soysal HG and Markoç F. Invasive squamous cell carcinoma of the eyelids and periorbital region. Br J Ophthalmol. 2007;91(3):325-9.

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