Yen E Teo[1,2], Hamdan SZ[1], Mohd Yusof SJ[1], Zunaina E[2]

[1]Department of Ophthalmology, Hospital Melaka, Jalan Mufti Haji Khalil, 75400 Melaka, Melaka, Malaysia

[2]Department of Ophthalmology & Visual Science, School of Medical Sciences, Universiti Sains Malaysia, Jalan Raja Perempuan Zainab II, 16150 Kubang Kerian, Kelantan, Malaysia

*Corresponding author
Yen E Teo
jacksonteo01@yahoo.com.my
Embong Zunaina
zunaina@usm.my

Received 2nd July 2024
Revised 11th Nov 2024
Accepted 12th Nov 2024
Published Online 22nd Nov 2024

Squamous Cell Carcinoma - Upper Lid Neglected Huge Mass: A Case Report

Abstract – A neglected eyelid mass can be intimidating, especially if leave untreated, as it can invade the orbit, resulting in blindness. We present a case of delayed treatment for squamous cell carcinoma in right upper lid of a 46-year-old lady. She was diagnosed with squamous cell carcinoma of right upper lid 3 years ago but defaulted treatment because of fears. She postponed her surgery due to pre-operative anxiety issue and potential outcomes. Over time, the tumor grew larger, eventually causing blindness in her right eye. Upon returning 3 years later, she had a large, firm and irregular fungating mass with whitish plaque originating from the right upper eyelid, covering the entire eyeball. Computer tomography of the orbit demonstrated a large soft tissue mass in the right periorbital region with lacrimal gland infiltration and possible orbital involvement. After comprehensive consultation, the patient consented to surgery. An extended orbital exenteration was performed due to the tumor's invasive nature. This case highlights how anxiety can delay treatment and lead to severe complications. Early intervention is crucial in managing eyelid malignancies effectively.

Keywords – *Upper lid, squamous cell carcinoma, anxiety*

1 INTRODUCTION

Squamous cell carcinoma (SCC) is an invasive malignancy arising from the squamous cell layer of the skin epithelium [1]. Ocular structure involvement includes the conjunctiva, cornea, and eyelid skin. It is the second most common malignant eyelid tumour and represents around 5% of malignancies in the palpebral area [2]. It has a much higher risk of metastases, often by lymphatic spread and is more aggressive compared to basal cell carcinoma [3].

The risk factors can be divided into intrinsic and extrinsic factors. Extrinsic factors are due to ultraviolet light/actinic damage and exposure to arsenic, hydrocarbons, radiation, or immunosuppressive drugs [4]. Intrinsic risk factors include albinism, pre-existing chronic skin lesions, and genetic skin disorders such as xeroderma pigmentosum and epidermodysplasia verruciformis [5].

The prognosis of squamous cell carcinoma is good if detected early and completely removed [3]. However, if treatment is delayed, it will result in a poor prognosis. Poor prognosis includes poorly differentiated tumours, perineural spread, orbital invasion, and individuals with immunosuppression.

We report a case of delayed treatment of right eye upper eyelid SCC due to patient pre-operative anxiety issue.

2 CASE PRESENTATION

A 46-year-old lady with comorbid diabetes mellitus and hypertension was diagnosed with right upper lid SCC about 3 years ago via histopathology examination. Upon her first visit, there's a small mass measuring 3cmx3cm over the upper eyelid of palpebral conjunctival. The histopathology showed sheets and island of malignant epithelial cells with extensive tumour necrosis. The malignant cells appear basophilic pleomorphic, with coarse chromatin pattern and prominent nuclei (Figure 1). She was planned for surgical removal; however, she defaulted on treatment due to anxiety about the surgical process and potential outcome. She expressed concerns about possible complications, including severe bleeding, infections, cosmetic changes to her eye, and side effects from anesthesia. As a result, she decided to explore traditional treatment options first.

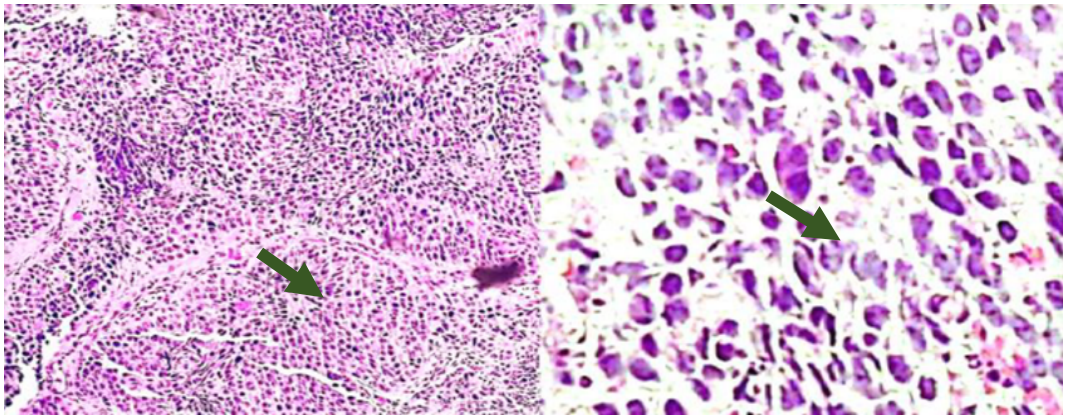

Figure 1. The specimen composed of sheets and island of malignant epithelial cells with extensive tumour necrosis as shown in arrow. The malignant cells appear basophilic pleomorphic with coarse chromatin pattern and prominent nuclei

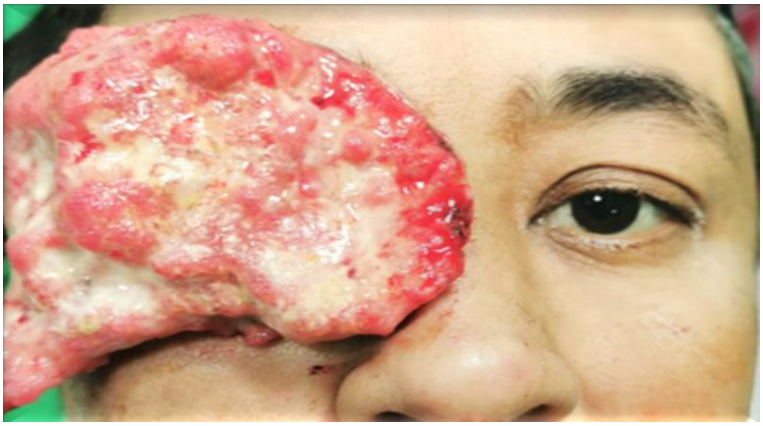

Figure 2. Right upper lid squamous cell carcinoma showed a firm fungating tumour measuring 10 x 5 cm with an irregular surface covered with whitish plaque

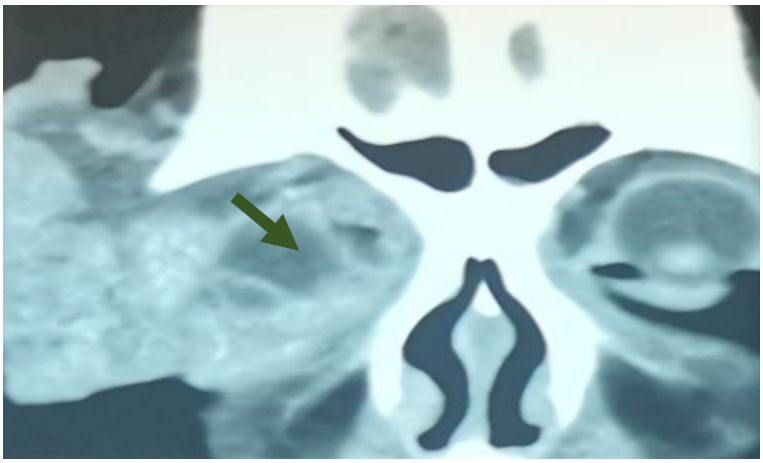

Figure 3. Computer tomography of the orbit shows a large soft tissue mass in the right periorbital region with lacrimal gland infiltration

Figure 4. At 2 months post extended orbital exenteration showed the wound had healed well, with granulation tissue present over the right eye

Since then, the tumour has increased in size over the past 3 years and has gradually led to right eye blindness. She has returned and presented with a large fungating mass originating from the right upper eyelid, covering the entire eyeball. There was no pain or eye discharge over the right eye.

Examination of the right eye showed a firm fungating mass measuring 10 x 5 cm with an irregular surface covered with whitish plaque (Figure 2). The right eye was obscured by the mass. Otherwise, examination of the anterior segment and posterior segments of the left eye yielded unremarkable results. On systemic examination, there was no lymphadenopathy or hepatosplenomegaly. Breast examination showed no palpable mass. Respiratory and cardiovascular systems were normal.

Computer tomography of the orbit demonstrated a large soft tissue mass in the right periorbital region with lacrimal gland infiltration and possible orbital involvement as shown with arrow (Figure 3).

The patient was referred to the oculoplastic team for further management. After comprehensive consultation, the patient finally agreed to undergo surgery. Extended orbital exenteration was performed on the right eye due to invasive orbital involvement. The tumour was sent for histopathology and the results revealed malignant epithelial cells with extensive tumour necrosis. There was presence of coarse chromatin pattern and prominent nuclei on the epithelial cells which is consistent with the diagnosis for SCC. Two months post extended orbital exenteration, the wound had healed well, with granulation tissue present over the right eye (Figure 4).

Magnetic resonance imaging (MRI) screening was performed in view of malignancy and noted there was metastasis to the right kidney. Otherwise, other systems were normal. Patient was further referred to Nephrology Unit for further managements and ongoing regular follow up.

3 DISCUSSION

SCC is a common malignant eyelid tumour with various modality of treatments. 5% to 10% of all skin cancers occur in the eyelid, and it comprises 5 -10% of all types of skin cancer involving eyelids [6]. The incidence for eyelid SCC has been reported to be between 0.09 and 2.42 cases per 100 000 population with higher prevalence in males, in the lower lid (especially the medial canthal region), in fair skin, and in countries with high UV light exposure [4].

Orbital invasion has been reported approximately 5.9% of all non-melanoma malignant eyelid carcinomas. Reported rates of metastasis in eyelid SCC range from 1–21% [7]. This patient exhibited orbital invasion and metastasis involving the right kidney, as shown via a screening MRI scan.

The diagnostic evaluation includes urgent computed tomography scans and histopathology examinations. In histopathology examination, SCC is characterised by full-thickness atypia with increased mitotic activity of the squamous cells.

The tumour may be graded based on the degree of cell differentiation. More differentiated tumours produce keratin, while the formation of keratin decreases in less well-differentiated tumours and is not seen in poorly differentiated SCC. Nests and strands are also characteristic of well-differentiated SCC. However, characteristic intercellular bridges are generally maintained in all SCC. In this case report, SCC is well differentiated based on the histopathology findings with presence of coarse chromatin pattern and prominent nuclei on the malignant epithelial cells.

Few journals reported that anxiety symptoms are worst particularly during pre-operative period [8,9]. The extent of anxiety levels varies individually. It fluctuates over time, starting prior to the surgery and can persist until post-surgery. Many are preoccupied with their discomfort or concerned about the success of surgery, strong fear of failure outcome, postoperative state of physical health and issues adapting to the abrupt changed situations [8]. Matthias et al reported that females are more anxious in comparison with males and in patients who have never had surgery are more anxious than those who have had surgery [9]. In this case report, our patient is female, which is one of the factors contributing to the anxiety issue.

4 CONCLUSION

Squamous cell carcinoma is a common malignant eyelid tumor with various treatment modalities. Patient anxiety should be identified and addressed early and comprehensively to prevent treatment failure. Preoperative anxiety should be addressed diligently to ensure patient adherence to expected treatment.

REFERENCES

[1] Asproudis I, Sotiropoulos G, Gartzios C, Raggos V, Papoudou-Bai A, Ntountas I, Katsanos A, Tatsioni A. Eyelid tumors at the University Eye Clinic of Ioannina, Greece: A 30-year retrospective study. Middle East Afr J Ophthalmol. 2015;22(2):230-2. doi: 10.4103/0974-9233.151881.

[2] Donaldson MJ, Sullivan TJ, Whitehead KJ, Williamson RM. Squamous cell carcinoma of the eyelids. Br J Ophthalmol. 2002;86(10):1161-5. doi: 10.1136/bjo.86.10.1161.

[3] Balasubramanian A, Kannan NS. Eyelid malignancies-always quite challenging. J Clin Diagn Res. 2017;11(3): XR01-XR04. doi: 10.7860/JCDR/2017/23695.9582.

[4] Cook Jr BE, Bartley GB. Epidemiologic characteristics and clinical course of patients with malignant eyelid tumors in an incidence cohort in Olmsted County, Minnesota. Ophthalmology. 1999 Apr;106(4):746-50. doi: 10.1016/S0161-6420(99)90161-6.

[5] Maclean H, Dhillon B, Ironside J. Squamous cell carcinoma of the eyelid and the acquired immunodeficiency syndrome. Am J Ophthalmol. 1996 Feb;121(2):219-21. doi: 10.1016/s0002-9394(14)70593-8.

[6] Cook Jr BE, Bartley GB. Treatment options and future prospects for the management of eyelid malignancies: an evidence-based update. Ophthalmology. 2001 Nov;108(11):2088-98; quiz 2099-100, 2121. doi: 10.1016/s0161-6420(01)00796-5.

[7] Loeffler M, Hornblass A. Characteristics and behavior of eyelid carcinoma (basal cell, squamous cell, sebaceous gland, and malignant melanoma). Ophthalmic Surg. 1990 Jul;21(7):513-8.

[8] Sigdel S. Perioperative anxiety: A short review. Glob Anesth Perioper Med. 2015;1(4):107-8.

[9] Matthias AT, Samarasekera DN. Preoperative anxiety in surgical patients-experience of a single unit. Acta Anaesthesiol Taiwan. 2012 Mar;50(1):3-6. doi: 10.1016/j.aat.2012.02.004.