

## The great masquerade-a case of squamous cell carcinoma of tarsal conjunctiva after a prompt diagnosis and good margin controlled excision

 Thangjam Amit Singh,  Sakshi Kumar,  Alka Tripathi,  Rohit Kumar

Department of Ophthalmology, India Institute of Medical Sciences Gorakhpur, Uttar Pradesh, India

**Cite this article:** Singh TA, Kumar S, Tripathi A, Kumar R. The great masquerade-a case of squamous cell carcinoma of tarsal conjunctiva after a prompt diagnosis and good margin controlled excision. *Arch Ophthalmol Res.* 2025;2(4):82-84.

Received: 04/09/2025

Accepted: 22/10/2025

Published: 30/10/2025

### ABSTRACT

A 70-year-old man complained to us of a big, friable mass from the upper lid of the left eye. The mass was gradually increasing in size and was causing drooping of the upper eyelid. The excision of the mass was planned and sent for biopsy and it was found to be squamous cell carcinoma. The presentation was atypical due to its location, so we chose to present this case.

**Keywords:** Squamous cell carcinoma, MMC, mitomycin-C, excision biopsy

### INTRODUCTION

Conjunctival squamous cell carcinoma (SCC) is the most common non-pigmentary malignancy of the ocular surface. It has higher incidence in the African population.<sup>1</sup>

SCC is diagnosed by performing histopathological evaluation following excisional biopsy.

After resection mostly patients are kept on topical mitomycin C (MMC) and seems to be safe and effective therapy for conjunctival and corneal SCC.<sup>2</sup>

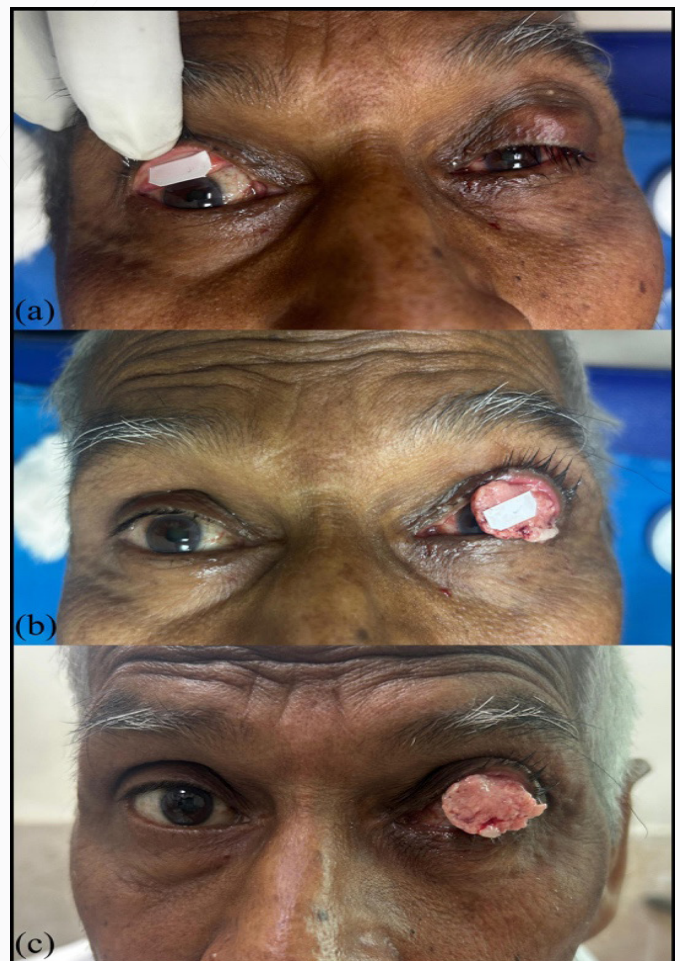
Conjunctival tumors encompass a broad range of diagnosis. The 3 most important malignant tumors include ocular surface squamous neoplasia (OSSN) 14%, melanoma 12%, and lymphoma 7%. Common benign eyelid tumors include nevi (moles), papillomas (similar to skin tags), seborrheic keratoses (wart like growths), and xanthelasma (fat deposits).

Common malignant tumors include basal cell carcinoma, squamous cell carcinoma, sebaceous carcinoma and melanoma.<sup>3</sup>

### CASE

A 70-year-old male came to us with the complaint of swelling of left upper lid from past 4 weeks. The swelling initially presented as a small nodule which had gradually progressed into a fleshy mass and was protruding from the upper lid of the left eye (Figure 1 a, b).

The swelling was associated with watering, pain, irritation and redness in left eye. The visual acuity in the right eye was 6/18p and left eye was 6/60. The lids and adnexa of right eye were within normal limit. The left eye showed lobulated, pink, friable mass of about 18 mm x14 mm arising from the tarsal conjunctiva of the upper lid (Figure 1 c) which led to mechanical ptosis of left upper lid.



**Figure 1.** A pink, friable and pedunculated mass arising from tarsal conjunctiva

**Corresponding Author:** Sakshi Kumar, saks.rocks12@gmail.com



This work is licensed under a Creative Commons Attribution 4.0 International License.

The anterior segment showed cataractous changes in both eyes and fundus was within normal limits. The patient was a known hypertensive with no other systemic illness.

He was a farmer by occupation with no history of any trauma to the eye or any ocular surgery or any similar lesions in the body.

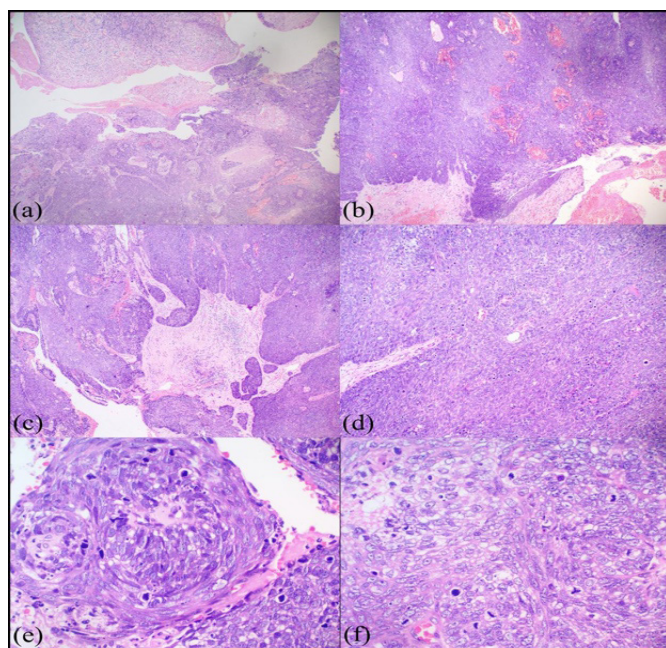
A non-contrast computerised tomography of the brain and orbits gave no evidence of intra-orbital extension or bony erosion with an incidental finding of diffuse cerebral/cerebellar atrophy.

Impression cytology showed highly cellular smears with dysplastic squamous cells showing high N:C ratio, hyperchromatic nuclei, coarse granular chromatin, prominent nucleoli and scant amount of cytoplasm. Overall cytomorphological features were suggestive of high grade dysplasia consistent with ocular surface squamous neoplasia. Excision biopsy was planned for this patient.

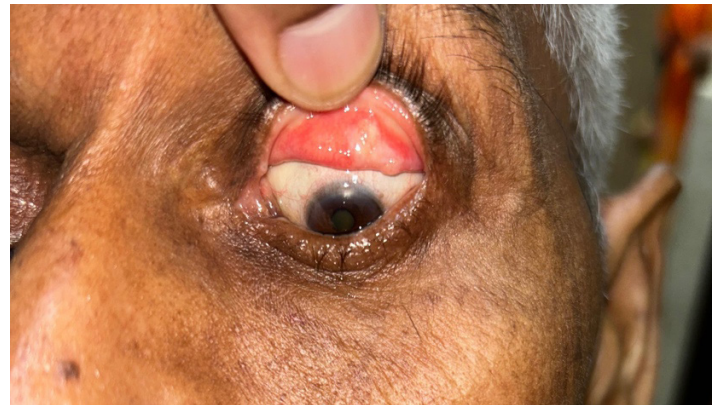
The lesion was a pedunculated mass and it was excised was planned from the base of the peduncle. Under local infiltration anesthesia, a moderate dissection was required for the tarsal conjunctiva to excise the entire mass. Hemostasis was achieved with electrocautery a good margin of about 2 mm was also excised around the peduncle. Cryoablation was done at the base to prevent the recurrence.

After the excision was done a sample measuring 2.8 cm x1.2 cm x0.6 cm was sent for histopathological evaluation and the patient was kept on topical interferon alpha drops.

Section examined showed tumour cells arranged in nodules, nests, lobules and islands. Individual tumour cells were moderately pleomorphic having high nucleus to cytoplasmic ratio, hyperchromatic nucleus, irregular nuclear membrane prominent nucleoli with scant eosinophilic cytoplasm (**Figure 2 a-f**). Mitosis is frequent with atypical mitotic figure is also identified. Features are suggestive of Basaloid squamous cell carcinoma (**Figure 2 a-f**). The patient reviewed with us weekly and no recurrence was noted (**Figure 3**).



**Figure 2.** a-d) Shows tumor in low magnification with cells arranged in nests, lobules, islands and nodules, e, f) Shows tumour in high magnification displaying moderately pleomorphic tumour cells, having high nuclear to cytoplasmic ratio, hyperchromatic nucleus with irregular nuclear contour and scant eosinophilic cytoplasm. Frequent mitotic figure along with few atypical mitoses are seen



**Figure 3.** Follow up after 3 weeks showing no signs of recurrence

## DISCUSSION

Ocular surface squamous neoplasia is a spectrum of conjunctival squamous cell dysplasia.<sup>4</sup> Squamous cell carcinoma of the conjunctiva is an uncommon tumour. There are two patterns in this tumour.<sup>4</sup> First pattern is observed in young patients who have HIV infection. The second trend is observed in older individuals, primarily men, who do not have HIV and reside close to equator.

The corneal limbus within the interpalpebral fissure is where this tumour frequently occurs.

UV-B radiation exposure is the most well-documented risk factor.

Atopic disorders, xeroderma pigmentosum and medical immunosuppression are immunodeficiencies linked to squamous cell carcinoma.

There has been a role of Human papilloma virus in other lesions of eye such as conjunctival papilloma, lacrimal sac neoplasia and squamous cell carcinoma of skin as such there has been a lot of studies to prove the relation with squamous cell carcinoma of conjunctiva but no definite relation has been associated till date.<sup>4</sup>

As per Tobias et al.,<sup>5</sup> a 33-year-old female presented with tumorous lesion of nasal bulbar conjunctiva. She was kept on topical mitomycin 0.02% after excision of the squamous cell carcinoma. It was atypical because of the gender and age of the patient.

In our case patient gave no history of any trauma or surgery, he had no systemic illness. He was farmer by occupation so he had exposure of UV rays but the location of the tumour was below the upper lid of left eye hence the location was atypical in terms of sun exposure.

As per Santoni et al.,<sup>6</sup> patient presented with squamous cell carcinoma in the mean age of 68 years and exposure to ultraviolet rays was the main reason for causing the squamous cell carcinoma.

## CONCLUSION

We can conclude that squamous cell carcinoma of conjunctiva and tarsal plate is uncommon but clinically significant because benign masquerades delay diagnosis and increase the risk of orbital invasion. This case demonstrates that a high index of suspicion and early biopsy are pivotal for any persistent lesion in elderly and sun-exposed patients. A good margin controlled excision can achieve tumour free margins and good functional outcomes when performed promptly.

## ETHICAL DECLARATIONS

### Informed Consent

The patient signed and free and informed consent form.

### Referee Evaluation Process

Externally peer-reviewed.

### Conflict of Interest Statement

The authors have no conflicts of interest to declare.

### Financial Disclosure

The authors declared that this study has received no financial support.

### Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

## REFERENCES

1. Shields CL, Demirci H, Karatza E, Shields JA. Clinical survey of 1643 melanocytic and nonmelanocytic conjunctival tumors. *Ophthalmology*. 2004;111(9):1747-1754. doi:10.1016/j.ophtha.2004.02.013
2. Gichuhi S, Sagoo MS, Weiss HA, Burton MJ. Epidemiology of ocular surface squamous neoplasia in Africa. *Trop Med Int Health*. 2013;18(12):1424-1443. doi:10.1111/tmi.12203
3. Rana H, Stokkermans TJ, Purt B, et al. Malignant Eyelid Lesions. [Updated 2023 Aug 14]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2025.
4. Ramberg I, Heegaard S, Prause JU, Sjö NC, Toft PB. Squamous cell dysplasia and carcinoma of the conjunctiva. A nationwide, retrospective, epidemiological study of Danish patients. *Acta Ophthalmol (Copenh)*. 2015;93(7):663-666. doi:10.1111/aos.12743
5. Röck T, Bartz-Schmidt KU, Bramkamp M, Milla J, Bösmüller HC, Röck D. Clinical management of squamous cell carcinoma of the conjunctiva. *Am J Case Rep*. 2020;21:e919751. doi:10.12659/AJCR.919751
6. Santoni A, Thariat J, Maschi C, et al. Management of invasive squamous cell carcinomas of the conjunctiva. *Am J Ophthalmol*. 2019;200:1-9. doi:10.1016/j.ajo.2018.11.024