Original Research Paper

Volume - 13 | Issue - 08 | August - 2023 | PRINT ISSN No. 2249 - 555X | DOI : 10.36106/ijar

Ophthalomology

A CASE SERIES: OCULAR SURFACE SQUAMOUS NEOPLASIA

Gargi Bhalla*	Department of Ophthalmology, Rama Medical College, Hospital and Research Centre, Hapur. *Corresponding Author
Anshu Sharma	Department of Ophthalmology, Rama Medical College, Hospital and Research Centre, Hapur.
Priyanka Dubey	Department of Ophthalmology, Rama Medical College, Hospital and Research Centre, Hapur.
Marisha Bishnoi	Department of Ophthalmology, Rama Medical College, Hospital and Research Centre, Hapur.

ABSTRACT **Purpose:** Ocular surface Squamous neoplasia refers to spectrum ranging from mild/ moderate/ severe dysplasia to carcinoma in situ to invasive Squamous cell carcinoma. Ultraviolet-B light and human papilloma viruses have been proposed as major risk factors in the etiopathogensis. Anterior segment optical coherence tomography, ultrasonic biomicroscopy and impression cytology have been added recently as non-surgical tools for diagnosis and management. The treatment includes surgery as mainstay with Mitomycin-C and cryotherapy as adjuvant therapy. Recently Interferons (IFN) as well as pegylated IFNs are regularly being used in select subsets of OSSN for treatment.

KEYWORDS : Ocular Surface Squamous Neoplasia, Smoking

INTRODUCTION

Ocular surface squamous neoplasia (OSSN) are important because they mimic many common indolent lesions like pterygium and have a potential for causing ocular and systemic morbidity and mortality. The prevalence of squamous cell carcinoma of the conjunctiva is low, and this is a rare condition (1). Squamous cell carcinoma of the conjunctiva is the end-stage of a spectrum of disease referred to as ocular surface squamous neoplasia (OSSN). OSSN is a malignant disease of the eyes that can lead to loss of vision and, in severe cases, death. The main risk factors for both are exposure to solar ultraviolet radiation outdoors, HIV/AIDS, human papilloma virus and allergic conjunctivitis.

Case 1:

A 47-year-old male presented to OPD of Department of Ophthalmology with complaint of reddish white mass in right eye for 2 months which was fleshy reddish white growth over right eye insidious in onset gradually progressive not associated with pain. The patient gave history of intermittent discharge from the same eye. He had no systemic illness. He is chronic smoker (6-8 bides/day) and non alcoholic. On local examination, there was a growth 14 mm x 8 mm located near the medial canthus in the right eye which was pedunculated, non tender, freely mobile over all but attached to the base, whitish plaque presents centrally, papillomatous surface with feeder vascularisation seen on the lesion and around the base (Figure1). Rest anterior segment examination of both eyes show immature senile cataract (nuclear sclerosis 2-3), posterior segment examination is WNL.

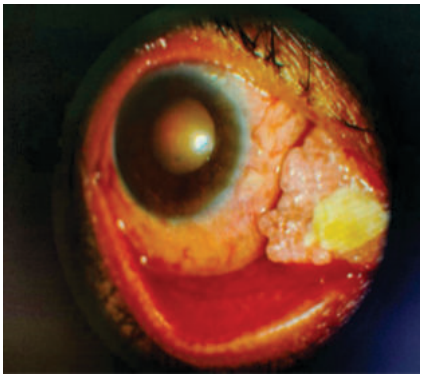

Figure 1: Papillomatous whitish plaque near medial canthus.

Case 2:

A 65 yrs old patient came to eye OPD of Department of Ophthalmology with complaints of growth of brown color mass in left eye for 7 months. The growth was progressive in size associated with on & off redness and watery discharge in left eye for 7 months. He had no systemic illness. He is a chronic smoker (10 bidis /day), alcoholic and consumes tobacco on regular basis for 35 years. On local examination, there was growth of 8x4 mm, at limbus 1- 5 o'clock, raised, irregular, brown color, non-tender. also had macular corneal opacity (Figure 2). Right eye had IMSC nuclear sclerosis 2 with PSCC. Rest anterior segment was WNL. Both eyes posterior segment was WNL. The mass was excised and sent for histopathological examination.

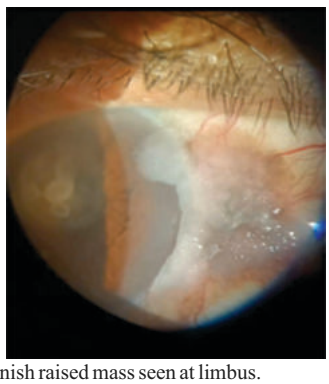

Figure 2: Brownish raised mass seen at limbus.

Case 3:

A 60 yr old male presented with complaints of growth in the eye, itching in left eye for 3 months. The growth was painless, progressively increasing in size associated with watering and itching in left eye for 3 months. He is chronic smoker and tobacco user. On examination, 2x1 mm raised, whitish, non-tender lesion at 6 o'clock position of limbus (Figure 3). Rest both eyes anterior and posterior segment WNL. The mass was excised and sent for histopathological examination.

Figure 3: Mass at limbus 6 o'clock

DISCUSSION

Squamous cell carcinomas of the conjunctiva are rare. Their incidence depends on the geographical location. The conjunctival intraepithelial neoplasms (CIN) as well as other precursor lesions of this carcinoma are the leukoplakia, actinic keratosis of the conjunctiva and the papillomatous lesions, so their identification and early diagnosis allow to offer timely treatment. In our case the patient had history of intraepithelial lesion of the conjunctiva of the left eye, with rapid and progressive growth of the lesion in two months.

The damage to the genes that code for proteins in charge of repairing DNA are altered by the direct action of UV rays on the genetic material. Other risk factors are HPV infection, HIV infection or any state of immunosuppression, repetitive trauma, chronic eye infections (trachoma), men between 50 and 75, xeroderma pigmentosum, etc. The diagnosis of these lesions may be clinical. Characteristically, squamous cell carcinomas of the conjunctiva are lesions that occur diffusely on the eyeball more than 1 mm from the corneal limbus. . This may be because jobs that tend to expose people to sunlight over long periods of time are commonly done by men. People with AIDS have an increased risk of developing certain cancers, including SCC of the conjunctiva (2). This tumor often appears in the area closest to the nose or temple. The growth may present as a white, flesh-colored, or red patch or a rounded, elevated growth or growths that have a gel-like appearance. It can cause eye irritation of the effected eye or chronic conjunctivitis (inflammation of the conjunctiva). SCC should be considered in cases of conjunctivitis that last longer than 3 months. The human papilloma virus (HPV) is carcinogenic in cervical and head and neck squamous cell carcinomas, but in patients with OSSN the role of HPV is still lacking (3). The treatment options for conjunctival epithelial malignancies include excision of the tumor removal with or without cryotherapy, radiotherapy, and topical chemotherapy.

CONCLUSION

The squamous cell carcinoma of the conjunctive is rare. Conjunctival squamous cell neoplasms can cause significant morbidity. Early diagnosis and intervention can prevent major eye damage. Surgery with excision of margins and adjuvant cryotherapy has a very high success rate. Technical modification may sometimes be necessary to reduce damage. A long follow up is necessary to prevent the morbidity.

REFERENCES

1. Saini N, Hasija S, Gill MK, Kalhan S, Dutta S. Conjunctival Squamous Cell Carcinoma, A Rare Entity: Case Report of 2 Cases. Oncology & Cancer Case Reports. 2017;3(2):1-2.
2. Gichuhi S, Sagoo MS. Squamous cell carcinoma of the conjunctiva. Community Eye Health. 2016;29(95):52.
3. García RL, Jimenez J, Gubbay C, Castañeda JF, Granados Á. Squamous cell carcinoma of the conjunctiva. Case report. International Journal of Surgery Case Reports. 2022 Feb 1;91:106785.