

Squamous Cell Carcinoma of the Conjunctiva

Ashok K. Sharma*, Subhash Bhardwaj**

Abstract

A rare case of squamous cell carcinoma of the conjunctiva is presented here. This highlights the significance of aggressive management of such cases surgically and the use of adjuvants pre operatively to prevent recurrence.

Keywords

Squamous cell carcinoma, Conjunctiva, Mitomycin-C.

Introduction

Squamous cell carcinoma usually starts at the limbus in the inter palpebral area but it may occur on the palpebral conjunctiva and on the cornea also. The tumour has gelatinous, papillomatous appearance, and some are covered with keratin producing leukoplakic lesions (1). Growth spreads centripetally with invasion of atypical pleomorphic squamous epithelial cells through the epithelial basement membrane to the substantia propria, but it rarely extends deeper into the eyes or the orbit. Management lies in the complete excisional biopsy with cryotherapy to the margins (2). Topical mitomycin-c application has also shown to be efficacious (3). Tumour must be removed as freely as possible and the diagnosis should be confirmed by histopathology. On the slightest sign of recurrence the eye must be excised and if the recurrence again takes place the orbit must be exenterated and radiotherapy adopted (4). Tumours that involve over 50% of the limbus have a poorer prognosis and in such cases limbal transplants are required (5). Tumours that involve the cornea usually do not invade the bowman's layer and therefore can be peeled off the cornea easily.

Case Report

A 50 year old male presented with history of swelling of right eye for last six months. The swelling gradually increased to the present size. There was history of diminution of visual acuity in right eye. There was no history of pain, double vision, discharge from the eye or cyclical change in the size of the swelling. His general physical examination did not reveal any abnormality. On local examination, there was a growth measuring 15mm × 12mm located primarily in the superonasal quadrant of the globe overlying the limbus and involving the superonasal quadrant of the cornea (Fig. 1). Growth was non-tender and fixed. The tumour had gelatinous, papillomatous appearance. Conjunctival congestion was seen, visual acuity in his right eye was 6/18 and in left eye 6/6. Fundus examination with indirect ophthalmoscope did not reveal anything significant.

Excision of the growth was carried out along with the healthy conjunctiva as freely as possible. Growth overlying the cornea was peeled off the cornea easily. Mitomycin-C 0.4 mg/ml was applied to the tumour bed for five minutes and then tumour bed was irrigated with normal saline. Post operative period was uneventful and

From the Departments of *Ophthalmology and **Pathology, Government Medical College, Jammu (J&K) India.

Correspondence to : Dr. Ashok K. Sharma, Senior Resident, Deptt. of Ophthalmology, Govt. Medical College, Jammu (J&K) India.

patient was kept on local antibiotic drops along with topical non-steroidal anti-inflammatory drops. Histopathological examination of multiple sections studied from the excised conjunctival growth showed a moderately differentiated squamous cell carcinoma (Fig. 2). Two weeks post operatively patient had Best Corrected Visual Acuity of 6/6 in both eyes and except for congestion his anterior segment was normal. Patient was kept on regular follow up for one year and there were no signs of recurrence.

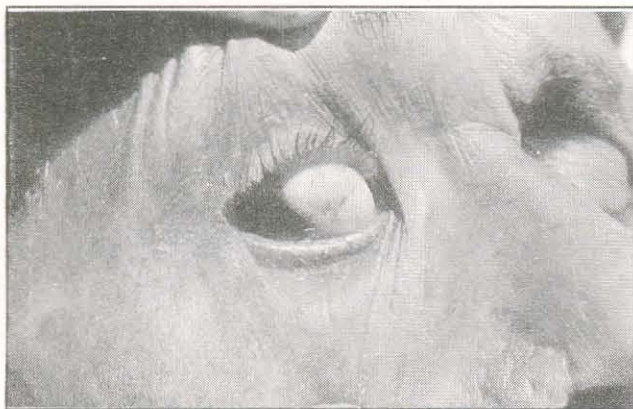


Fig. 1. Gross photograph of the tumour occupying the superonasal quadrant of the cornea.



Fig. 2. Photomicrograph of the tumour showing a moderately differentiated squamous cell carcinoma (x 40)

Discussion

Patients with any growth in the conjunctiva whether pigmented or non-pigmented in the fifth decade of their life are at the risk of development of malignant lesion

and they need to be managed aggressively lest they land up with spread into lids or orbit. Metastasis in squamous cell carcinoma of the conjunctiva is rare and if metastasis do develop, the sites of first spread are parotid and submandibular lymph nodes (7) consequences of such a spread are disastrous. There is a total unanimity in the management of such cases, the management lies in the early excision of the tumour with healthy margins as freely as possible followed by treatment of the base of the tumour by any one of the three modalities i. e. diathermy, cryotherapy or mitomycin-c application to prevent recurrence. Two variants of squamous cell carcinoma, spindle cell (pseudosarcomatous) and mucoepidermoid carcinoma are rare. However, these tumours have aggressive growth patterns and invade the eye and orbit. They are characterised by early recurrence if they are not carefully and totally removed (8), thus making the approach to management of such tumour more aggressive.

References

1. Erie JC, Campbell RJ. Conjunctival and corneal intraepithelial and invasive neoplasia. *Ophthalmology* 1986 ; 93 : 176-83.
2. Char DH. Conjunctival Malignancies : Diagnosis and management. Int : Char DH, ed. Clinical ocular oncology. New York Churchill livingstone : 1989 : 63-87.
3. Frucht-Persy J, Rozenman Y. Mitomycin therapy for intra epithelial neoplasia. *Am J Ophthalmol* 1999 ; 117 : 164- 68.
4. Stephen JH. Miller : Diseases of the conjunctiva : I.S. Ed Parsons' diseases of the eye. 1990.
5. Copeland RA, Char DH. Limbal autograft reconstruction after conjunctival squamous cell carcinoma. *Am J Ophthalmol* 1990 ; 110 : 412-15.
6. Joel Sugar Cornea and External disease ophthalmology : London Mosy international Ltd. 1999 ; 5 : 1-16.
7. John Douglas Cameron MD, Marilyn C. Kincaid MD. Ophthalmic pathology and intra ocular tumour : Basic and Clinical Science Course 1993-94.
8. Spencer WH : Ophthalmic pathology : Atlas and text book Vol 1, ed. 3. Philadelphia : WB Saunders, 1985 ; 187-90.