A Case of Conjunctival & Corneal Intraepithelial Neoplasia (CCIN) : Carcino
da in situ of the Conjunctiva & Cornea

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Introduction

When the cytological features of malignancy are present but the malignant cells are confined to epithelium without invasion across the basement membrane, it is called as carcinoma in situ or intraepithelial neoplasia. CCIN is an uncommon, benign, slowly progressive unilateral disease with low malignant potential. Risk factors are ultraviolet light exposure, HPV infection and Acquired Immunodeficiency Syndrome.

Case Report

A 78 year old man presented with a raised gelatinous growth at the superior limbus of left eye of 28 years duration which was slowly progressive in nature. As it was asymptomatic the patient did not seek any medical advice. (Fig 1)

On Examination

There was a raised pinkish white gelatinous mass with tufts of vessels on its surface, at the superior limbus extending 4 mm on its conjunctival as well as the corneal side for more than 180 degrees of the limbus (Fig 2)

Initial Management

Initially 2mm x2mm of the growth was excised (Fig 3) and sent for histopathological examination: HPE revealed epithelial dysplastic changes. One month later, the entire lesion was excised with adjoining 4 mm of normal conjunctiva while on the corneal side it was completely shaved off. HPE showed strips of squamous epithelial tissue with severe dysplasia and carcinoma.
in situ changes with attempted epithelial pearl formation.

Subsequent management

After receiving the HPE report the patient was put on topical Mitomycin C 0.2 mg/ml eye drops twice daily for 15 days.

Follow up

The patient was closely followed up for any recurrence. No recurrence was noted till date with 8 months of follow up (Fig 4).

Discussion

Carcinoma in situ is rare in the eye compared to other parts of the body. It may present as Leukoplakia, Papilloma, or as complication of Pterygium or Pinguecula. Impression cytology may be useful in diagnosis.

As the basal membrane of the epithelium remains intact and the sub epithelial tissue is not invaded, simple shaving off the lesion is sufficient and there is no need for deep dissection. Only infrequently the lesion becomes invasive.

If the CCIN is localized, excision with cryotherapy is curative while the diffuse form CCIN is difficult to treat as the borders of the lesion are poorly defined, making a complete excision impossible. Recurrence rate would be high, and may be treated with other modalities like topical mitomycin, 5-fluorouracil & interferon alpha-2b as alternatives or as adjuncts to surgery.

Bibliography

1. Keren Haas, MD; David Ben-Dor, MD; Shmuel Levartovsky, MD; Ashkelon, Israel Treatment of Conjunctival Corneal Intraepithelial Neoplasia With Topical Mitomycin C. Arch Ophthalmol. 1999; 117: 544-545.