Case Report

Conjunctival malignant melanoma with intraocular extension

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ABSTRACT

We present a 65-year-old woman who underwent repeated surgery after being diagnosed as a case of recurrent malignant melanoma. Initial treatment included surgical excision with adjuvant cryotherapy and alcohol corneal epithelialectomy. Three years after initial surgery, intraocular extension of the melanoma was observed, and enucleation was performed. Findings from histopathological examination revealed a malignant melanoma occupying part of the ciliary body and the trabecular meshwork. Therefore eyes with recurrent malignant melanoma of the conjunctiva should be carefully monitored for intraocular extension. (Rawal Med J 2013;38:235-237).

Key words: Malignant melanoma, intraocular tumors, choroidal melanoma.

INTRODUCTION

Conjunctival melanoma is a relatively rare condition, occurring only 1/40th as often as choroidal melanoma and approximately 500 times less often than cutaneous melanoma, representing 1.6% of all non-cutaneous melanomas.[1] Primary malignant melanomas of the conjunctiva arise from primary acquired melanosis (75%), melanocytic conjunctival nevi (20%-30%), or de novo.[2] However, intraocular extension of a malignant melanoma of the conjunctiva is rare.[3]

CASE PRESENTATION

A 65-year-old woman was seen at the Department of Ophthalmology, Government Medical College, Srinagar complaining of gradually increasing swelling in the conjunctival region of the right eye for the last four months. The patient had not noticed any appreciable discolouration of conjunctiva prior to this. She had some pain and redness of the eye when the swelling started. Past history did not reveal anything of significance.

Examination of right eye revealed Visual acuity of 6/6. We observed slightly pigmented and prominent tumor of the conjunctiva next to the limbus at the 9-o'clock position (Fig 1) and there were pronounced dry-eye symptoms. Anterior Chamber angle revealed no abnormality. The lens showed a nuclear and cortical cataract, the retina was attached, the optic disc appeared normal. The examination of left eye revealed no significant findings except for cortical cataract. General examination showed fair health with a B.P of 130/80 mm. Hg. Other systems were normal as were routine test results and investigations.

On the basis of initial examination it was decided to do a wide surgical excision with adjuvant cryotherapy and alcohol corneal epithelialectomy. Excision of conjunctival lesion was done beyond clear margins and superficial scleral scrapings were taken as well and sent for histopathological examination. Findings from histopathological evaluation (Fig 2) revealed nests of slightly pigmented, uniform-looking tumor cells surrounded by a chronic, nonspecific lymphoplasma-cellular infiltration. The margins of conjunctival biopsies as well as scleral scrapings were free of tumour cells. The patient was placed on regular follow up till one year initially frequently and then at about 6 weekly intervals.

Patient then turned up three years later with a pigment pedunculated conjunctival regrowth involving temporal and inferior limbal conjunctiva (Fig 3). Rest of eye examination was normal except for, brownish-pigmented areas seen inside the chamber angle from the 9- to 12-o'clock position by gonioscopy (Fig 4) which arouse the suspicion of intraocular spread. A contrast enhanced CT showed

no conclusive evidence of intraorbital or brain metastases but increased contrast activity was detected in lateral wall of globe and vitreous (Fig 5) which suggested intraocular spread. Further investigations were done to detect any systemic spread which all came negative and it was decided to take up the patient for modified enucleation with excision of much of bulbar conjunctiva.

Histopathological examination of enucleated eye revealed different parts of conjunctiva, cornea, sclera, and ciliary body invaded by epithelioid tumor cells which expressed the same immunohistochemical-staining pattern. The choroid, attached retina, and optic nerve appeared normal.

Fig 1. Tumor of the conjunctiva next to the limbus at the 9-o'clock.

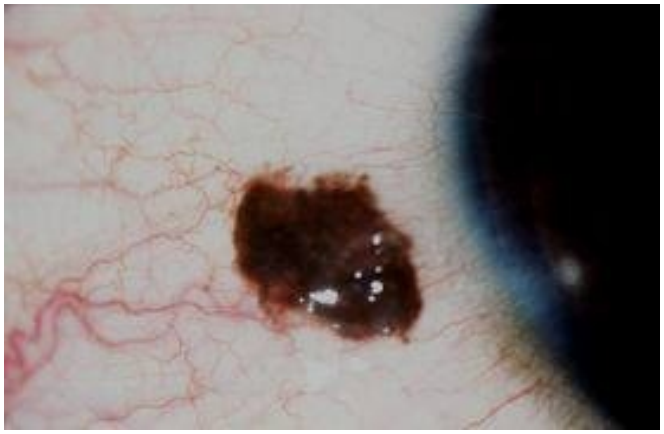


Fig 2. Nests of slightly pigmented, uniform-looking tumor cells.

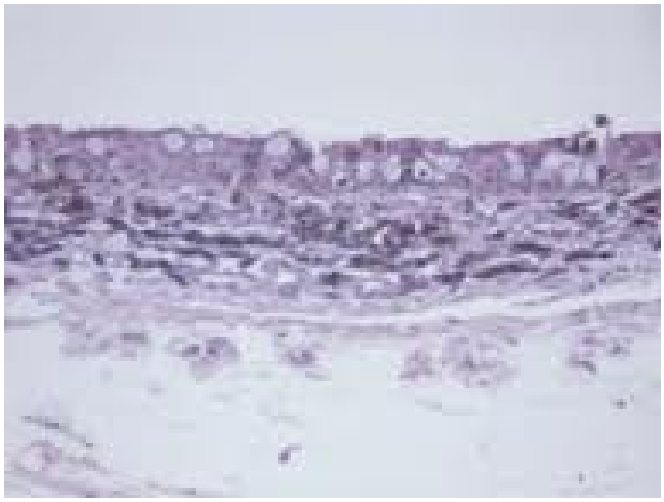
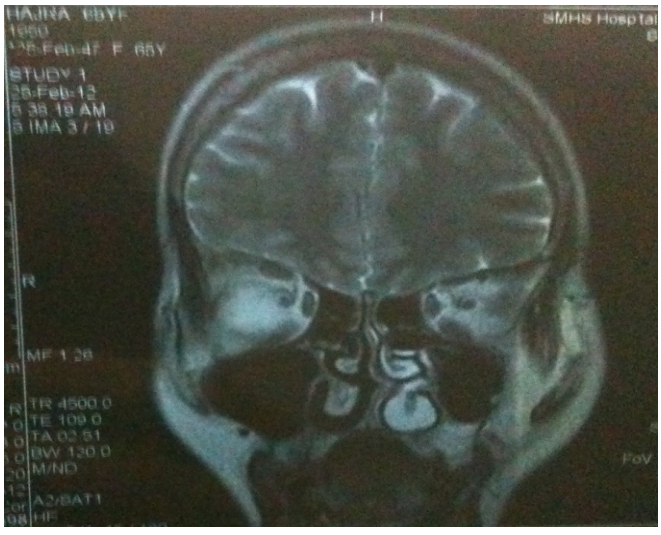


Fig 3. Pigment pedunculated conjunctival regrowth involving temporal and inferior limbal conjunctiva.

Fig 4. Brownish-pigmented areas seen inside the chamber angle from the 9- to 12-o'clock position by gonioscopy.

Fig 5. Increased contrast activity was detected in lateral wall of globe and vitreous.



DISCUSSION

Conjunctival malignant melanoma may arise in any one of the two ways, i.e., either apparently spontaneously or developing from a benign naevus, which may have been stationary for many years.[4] It appears that the pre-existing naevus changes its character, usually after the age of 45 years. Malignant melanoma of the conjunctiva is a potentially lethal neoplasm with an average 10 year mortality rate of 30%.[5] Sometimes, uveal melanomas lead to pigmented epibulbar lesions by extraocular extension mimicking a conjunctival melanoma but intraocular extension of a conjunctival malignant melanoma is an extremely rare entity.[3] Therefore, finding of epibulbar and intraocular pigmented lesions more commonly suggests a uveal melanoma with extraocular extension. However confirming the origin from the conjunctiva or the ciliary body is not possible because there is no method to differentiate between conjunctival or uveal melanocytes.

However, possibility of primary conjunctival melanoma with intraocular extension was much more in our patient as Acquired melanosis with cellular atypia was seen inside the conjunctival epithelium in close relationship to the tumor. This finding is not consistent with an epibulbar growth originating from a primary intraocular tumor. Also pigmented lesions were seen at the limbus which is rarely seen in extraocular extension of uveal melanoma and despite multiple previous examinations, intraocular changes did not occur until the last time the patient was seen.

The appropriate treatment for conjunctival malignant melanomas is still controversial and there are no exact data concerning the radiosensitivity of the conjunctival malignant melanoma and the advantages of an adjuvant radiotherapy.[6] The preferred management is total surgical excision.[7] Cryotherapy is applied to the margins and at times to the base of the excised regions.[8] Because of recurrent tumor at the limbus is corneal PAM with atypia, the affected cornea is treated with chemical applications of absolute alcohol to the denuded Bowman's layer.

In our patient, local tumor control had been intended by excisions of the tumor and adjuvant cryotherapy. The case reported by Gow and Spencer [9] also had intraocular extension of a conjunctival malignant melanoma after lamellar keratectomy and sclerectomy. This could indicate that the scleral and corneal barrier is normally resistant to penetration by an epibulbar malignant melanoma but may lose this function after lamellar surgery.

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