A case report of recurrent conjunctival malignant melanoma

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Abstract
Malignant melanoma of the conjunctiva is potentially fatal with a mortality rate of 30% and displays a high rate of recurrence. Our patient presented with a rapidly increasing mass in his left eye and complained of foreign body sensation in the left eye and did not have any other symptoms. There were no signs of intraocular extension on examination with slit-lamp biomicoscope, gonioscopy to evaluate the angles of the anterior chamber, indirect ophthalmoscopy & B-Scan ultrasonography to evaluate the posterior segment. There were no signs of systemic metastasis. The mass was excised using the no-touch technique and sent for histopathological analysis. The conjunctival defect was covered using a dry amniotic membrane graft.
Histopathological analysis of the mass confirmed the diagnosis of malignant melanoma of conjunctiva. The patient is now being followed up for the past 2 and a half years post-surgery with good results.

Keywords: Conjunctiva, Dry amniotic membrane, Malignant melanoma, Topical mitomycin-C.

Introduction
Conjunctival melanoma is a rare and aggressive tumour that accounts for 5–7% of all primary ocular melanomas. It usually presents as a raised, pigmented or non-pigmented lesion.[(1,2)] In an ocular oncology set up, PAM occurred at 11% of all conjunctival tumours and accounted for 21% of melanocytic lesions.[(3)]

Case Report
A 50 year old male came to our OPD on 27 May 2015, with a rapidly increasing swelling on the inner aspect of his left eye. He had a small patch of black discolouration in his left eye since childhood, this patch increased in size following trauma 10 years back. At this point the patient got this swelling excised (records of the procedure are unavailable). After around 5 months post-surgery, he noticed a recurrence of the swelling at the same site and was rapidly increasing in size. There were no signs of intraocular inflammation. His vision was reduced to 6/24 in the left eye due to induced astigmatism. Intraocular pressure and fundus were normal.

The right eye and adnexa appeared normal.

The left eye showed a brownish pink mass in the inferior bulbar conjunctiva, measuring 12mm x 6mm. The lesion was raised to about 4-5mm above the surface. The swelling was nodular, firm and immobile. There were few areas of superficial keratosis over the swelling. [Fig. 1] There was no corneal involvement. There was no Regional lymphadenopathy was absent.

CT scan of the orbit, Blood, bone marrow and biochemical tests were normal. Chest X-Ray, ECG and abdominal ultrasound were normal.

A differential diagnosis of conjunctival amelanotic naevus, ocular surface squamous neoplasia and conjunctival malignant melanoma were kept in mind.

Complete excision of the mass was done under local anaesthesia as per the no-touch technique, with a tumour free margin of 2mm, [Fig. 2], followed by superficial sclerectomy. Cryotherapy (double freeze thaw) was then applied to the conjunctival margins. Topical chemotherapy with mitomycin C was given. Dry amniotic membrane grafting was done to cover the conjunctival defect. [Fig 3] The excised mass was sent for histopathological examination.

The biopsy report revealed malignant melanoma of conjunctiva. [Fig. 4]

The patient was advised adjuvant topical chemotherapy using 0.04% mitomycin C. the patient has been under follow up since the last 2 years and 6 months and has showed no signs of recurrence of the disease.

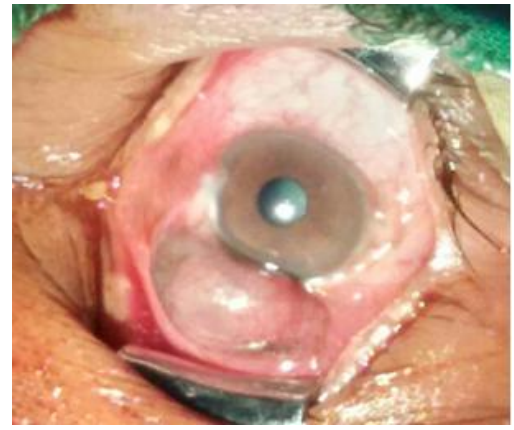

Fig. 1: Mass in the inferior bulbar conjunctiva

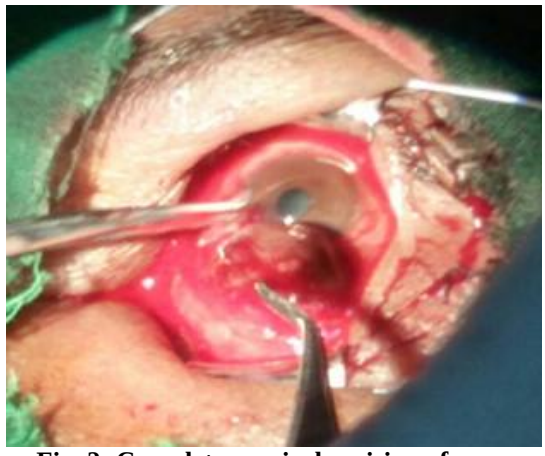

Fig. 2: Complete surgical excision of mass

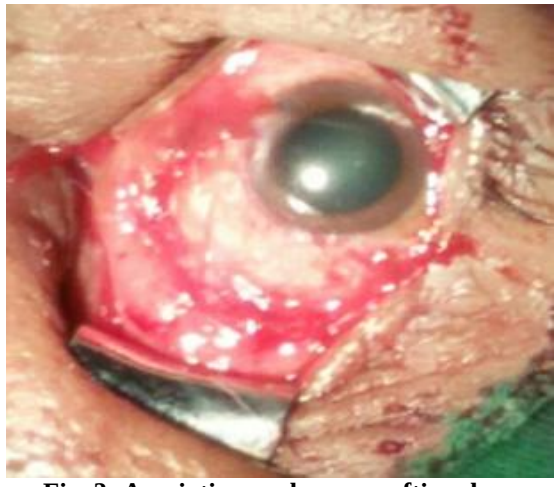

Fig. 3: Amniotic membrane grafting done

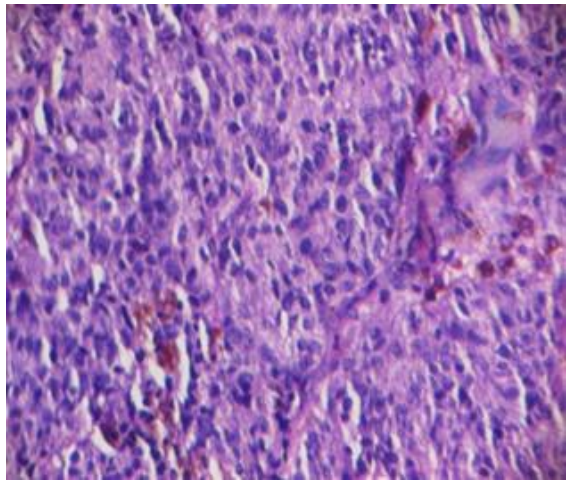

Fig. 4: Polyhedral melanin loaded cells obscuring the nuclear details with areas of necrosis.

Discussion

Conjunctival malignant melanoma is a rare and develops spontaneously or from a previous benign naevus.[4] It is a malignant tumour of proliferating melanocytes derived from neural crest cells.[5]

Our case had conjunctival naevus since childhood and had a recurrence after 10 years of excision. This surgical trauma could be the precipitating factor for malignancy in our case. The histology of the lesion confirmed the diagnosis of epitheloid variety of malignant melanoma showing rich vascularisation and areas of necrosis. Epithelioid variety has the worst and the spindle cell variety has the best prognosis. Surgical excision with adjuvant cryotherapy is effective in most of these lesions.

According to TNM staging for conjunctival malignant melanoma, our case was T1bN0M0. Hence, surgical resection of tumour was done. Post-operative radiotherapy was advised.

Conclusion

Conjunctival melanoma deserves special mention because of its rarity and lethal potential. This case report explains how we were able to manage a case of recurrent conjunctival malignant melanoma with good outcome.

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