Malignant conjunctival melanoma · A Case Report

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Summary

A rare case of malignant conjunctival melanoma is presented. The problems encountered in diagnosis and management are discussed. Early diagnosis facilitates complete excision of the tumour with good prognosis.

Case Report

T.K.M. a 50-year old Chinese male presented in March 1985 with a four-year history of multiple pigmented growths in the left conjunctiva. Examination showed a main pedunculated pigmented conjunctival growth of 1.5cm x 1.0cm in size with increased vascularity and irregular surface at the left upper tarsal conjunctiva (Fig. 1) and a few other scattered lesions over the bulbar and the limbal conjunctiva. Regional lymph nodes were not palpable. A clinical diagnosis of left conjunctival malignant melanoma was made.
Chest xray. liver and bone scans showed no evidence of metastasis. A complete wide excision of all the conjunctival lesions with a conjunctival graft from the other eye was performed. The tissue was subjected to histopathological examination. The post operative recovery was uneventful and the patient was discharged well.

Pathology

The excised nodules from tarsal and bulbar conjunctiva were dark brownish in colour and the largest measured 1.5cm x 1cm. Histology (Fig. 2) showed conjunctival epithelium with underlying tissue infiltrated predominantly by epitheloid cells with vascular nuclei. There was melanin production by the neoplastic cells. The tumour was free but close to the lateral and deeper surgical margins. This was consistant with the diagnosis of malignant melonoma.

Discussion

The incidence of normal conjunctival pigmentation has not been reported. Conjunctival nevi are common and affect all races. However, conjunctival melanomas which are usually seen in the

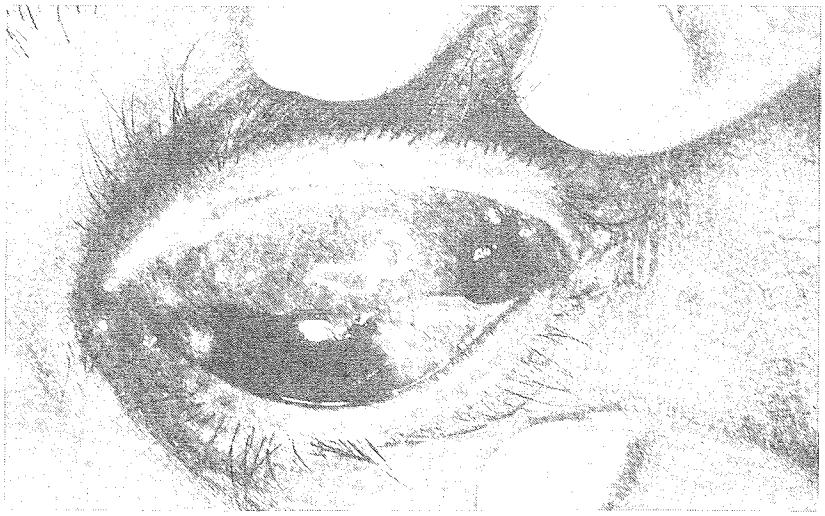

Fig. 1
Pigmented growth on (L) upper tarsal conjunctiva

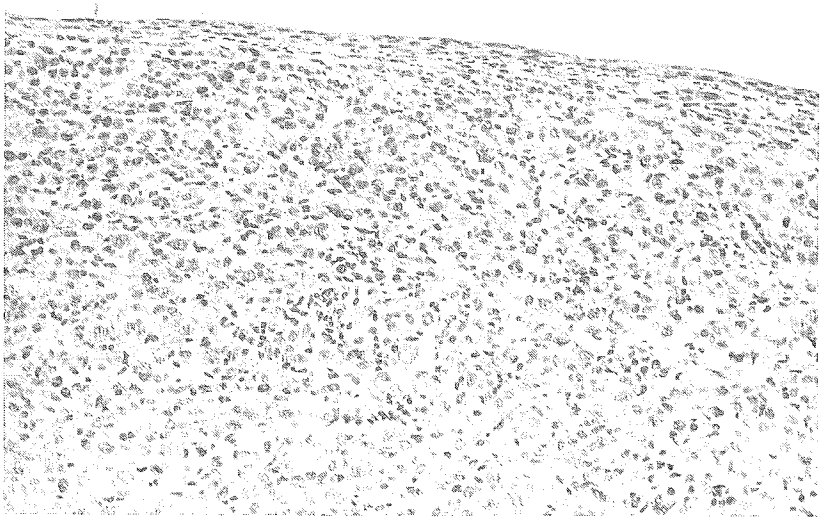

Fig. 2
Conjunctival epithelium with underlying tissue infiltrated by tumour cells admixed with inflammatory cells.
(Haematoxylin and eosin x 80).

Caucasian population are uncommon here. An incidence of 2% is reported in the United States.[1] Conjunctival melanoma arises denovo as a result of malignant change occuring in melanocytes which reside in the neighbourhood of blood vessels. They can also arise as a result of malignant change occuring in pre-existing nevi or intraepithelial melanosis. The cornea is normally spared as it contains no melanocytes.
Provisional diagnosis of conjunctival melanoma is based on clinical suspicion. Stationery, flat, non-vascular, non-invasive cystic lesions are most likely nevi. These can be observed periodically without treatment. However, if a pigmented lesion has a history of progressive growth and/or is greater than 0.55mm in elelvation, with vascularity and corneal invasion, surgery is indicated.[2]

If the lesion is extensive, then a small representative wedge biopsy may be justified to establish a tissue diagnosis. The treatment for a small lesion is local excision of the conjunctiva. However, larger lesions as seen in our patients would require wide excision with mucous membrane graft. Some workers in addition advocate application of cryotherapy to the margin of the remaining bulbar conjunctiva to prevent recurrences.[2] Very extensive lesions may require an exenteration. Where the melanoma of the conjunctiva is too widespread to excise, radiotherapy may offer results that are as good as those obtained with exenteration procedures. These lesions appear to be more sensitive to radiation compared to skin and uveal malignant melanoma. The course of these tumours

is often unpredictable. Small invasive melanomas may prove lethal while large advanced tumours may pursue a more benign course. Recurrence is not unknown, the pathogenesis of which has not been well elucidated. Recurrences are common in patients with widespread acquired melanosis. A nodule of invasive malignant melanoma may be excised from one area only to be followed by the appearance of new tumours in other parts of the diseased conjunctiva. These should be regarded as expressions of the potential of the basic disease (acquired melanosis) to give rise to multiple foci of malignant change rather than as a recurrence of the original tumour that was excised.[3] However, recurrences can also occur as a result of local contamination during excision. Close follow up is required to pick up recurrences early which can be treated in a similar manner as described above. This was explained to our patient.

Conclusion

All cases of suspicious pigmented conjunctival lesions should be excised or biopsied. If histopathological examination reveals a conjunctival melanoma then a wide surgical excision should be carried out. In the clinical management of these tumours the main objective should be early diagnosis with a complete wide excision of the lesion which carries a good prognosis. Close follow up is essential as recurrences can be picked up early and treated adequately.

Acknowledgement

The authors wish to thank the Medical Illustrators and Ms T C Yap for typing the script.

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