

not require suturing. On dilated fundal examination there was no retinal pathology other than commotio retinae in the inferonasal retina. There was no bony injury.

A search was made for the bullet and it was found in the patient's bedding! Clearly the patient had opened her eyes so wide in surprise on seeing a female surgeon that the bullet fell out – the easiest trauma surgery of my career!

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Sir,

Choroidal Melanoma Metastatic to the Contralateral Orbit: Implications for Patient Management

A 34-year-old white male presented in 1974 with total retinal detachment in the left eye secondary to a large pigmented fundal mass. Enucleation was performed and section of the globe demonstrated a tumour 11 mm in diameter immediately temporal to the macula. Histopathological examination showed the lesion to be a spindle cell melanoma arising in the choroid.

At that time there was no evidence of spread beyond the globe, and the right eye was normal to clinical examination. The patient was reviewed regularly for 5 years and then discharged, with no evidence of recurrence.

In July 1991 he presented with a 4 week history of protrusion of the right eye. On examination there was severe non-axial proptosis with inferior displacement of the eye. The optic disc was swollen. The visual acuity was 6/6 with correction. There was no sign of recurrence in the left socket. CT showed a 2 cm diameter extraconal mass adjacent to the roof of the orbit (Fig. 1). The results of a general clinical examination were normal but a chest radiograph showed a 2 × 2.5 cm discrete opacity in the right lung. Results of other investigations, including liver function tests and abdominal ultrasound, were normal.

The orbit was explored. An irregular dark brown mass was excised piecemeal. Histopathological examination confirmed the clinical suspicion of metastatic melanoma,

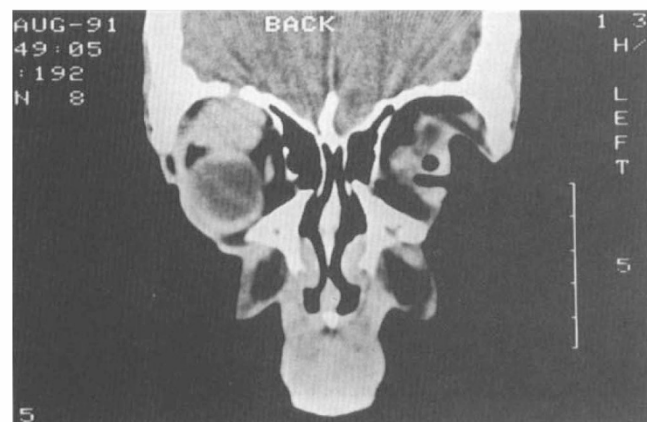


Fig. 1. Coronal CT scan showing a right orbital mass depressing the eye and eroding the floor of the anterior cranial fossa.

with the cell type being similar to that of the tumour in the left eye, but showing an increase in the frequency of mitotic figures.

The post-operative recovery was uneventful, and the patient was referred to the Regional Centre for Radiotherapy and Oncology at Clatterbridge, Merseyside, for further management. Chemotherapy with vindesine was instituted but there was no reduction in the size of the orbital or pulmonary tumours on serial CT scanning. External beam radiotherapy to the posterior right orbit resulted in an initial 25% reduction in the cephalocaudal diameter of the lesion. The visual acuity remained stable. Unfortunately multiple pulmonary emboli resulted in significant symptomatic deterioration of lung function. The patient also began to experience rapid weight loss. After discussion he declined further radiotherapy and was transferred for hospice care in December 1991.

It is unusual for any tumour to metastasise to the orbit, and when this occurs the source is most frequently lung or breast.¹ Malignant melanoma metastatic to the orbit is especially infrequent, and in the great majority of cases arises from a cutaneous primary.² Shields *et al.*³ reported on a series of 645 biopsied orbital lesions, of which none were metastatic malignant melanoma. Orcutt and Char² found 23 published cases of melanoma metastasising to the orbit and presented an additional 6, with a choroidal primary in only 1 case. The most common sites of metastatic secondary deposits from ocular melanoma are the liver, lungs and bone.⁴

Considered against this background, choroidal melanoma metastasising to the contralateral orbit is exceptional; a search of the literature revealed only 4 previous cases.^{2,5-7} Each of these patients also presented with proptosis of the remaining eye following enucleation on the primarily involved side between 4 and 10 years previously.

Metastasis of a uveal melanoma to the contralateral orbit is a devastating event which may present grave implications for the preservation of sight. Despite its rarity it must therefore be considered when weighing the advantages and disadvantages of enucleation as opposed to the spectrum of more conservative measures. Patients often ask whether their tumour can spread from one eye to another and the honest answer to this question should be 'rarely'. It might be possible to offer patients with this complication some reassurance regarding the maintenance of their sight, insofar as significant intractable reduction of acuity is not reported in any of the cases described, although to some extent this is due to the poor prognosis for survival.^{2,5-8}

This case also suggests that patients presenting with *ipsilateral* tumour several years after enucleation for melanoma may have a metastatic tumour rather than recurrence from extraocular extension of the primary, with correspondingly differing prognostic implications.^{4,8} This differentiation will be more important when chemotherapy for metastasis is available.

Of additional interest is that the orbital signs in this

instance, as in the previous similar cases, presented as the first manifestation of metastatic spread. Metastasis from ocular melanoma implies a poor prognosis for survival; Lorigan *et al.*⁴ reported that 105 of 110 patients died between 1 and 38 months of the onset of metastatic disease.

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Sir,

Choroidal Haemorrhage During Cataract Extraction by Phacoemulsification

A recent letter to the journal by Mr Elliott¹ showed the benefit of phacoemulsification in coping with a potential expulsive haemorrhage. We wish to report a similar case where the haemorrhage occurred earlier in the procedure, requiring further surgical intervention.

Case Report

A 72-year-old woman was admitted for in-patient cataract surgery. She was hypermetropic and had worn glasses since the age of 16 years. Visual acuity was 6/60 in the right eye and 6/18 in the left due to bilateral cataracts. The anterior chambers were shallow but no other abnormality was seen. She had been treated for hypertension for 14 years, had a history of drop attacks due to atherosclerotic carotid arteries and was a smoker. Local anaesthetic was given using a peribulbar technique. A 5.5 mm scleral tunnel was made and a 3.2 mm keratome was used to enter the eye. Capsulorhexis was uneventful, and phacoemulsification was commenced. The nucleus was cracked and removal of the segments completed. As the instruments

were being changed for irrigation/aspiration the anterior chamber became flat and the eye became hard. It was impossible to re-form the anterior chamber and so the procedure was abandoned. The wound was closed with 10/0 Nylon, and intravenous Diamox 500 mg (Lederle) was given. At that time the blood pressure was 180/115 mmHg.

Examination 3 hours later showed a deep anterior chamber with a tiny piece of nucleus, and plenty of soft lens matter. The intraocular pressure was 45 mmHg and fundal examination showed a choroidal haemorrhage in the superotemporal quadrant.

In the next few days the intraocular pressure was brought under control medically. Six days post-operatively the patient was taken back to theatre, and under a general anaesthetic the wound was reopened, the soft lens matter aspirated and a posterior chamber lens implant inserted in the capsular bag, all without difficulty. The patient was discharged the following day. At her first review 2 weeks later the visual acuity was 6/12 unaided, improving to 6/9 with correction.

Discussion

In this case a choroidal haemorrhage was proven and, given the high intraocular pressure, would have been very likely to produce an expulsive haemorrhage with standard cataract surgery. This case exemplifies the control over the eye given by the small wound and this allowed the surgeon to return only a few days later to complete the operation, knowing that he still had that control. Expulsive haemorrhage is a rare complication, and has an incidence in one large series of 0.15%, but it is devastating when it does happen.² Even without a choroidal haemorrhage, a 'tense' eye with a shallowing anterior chamber is familiar to us all and can make complications such as posterior capsular rupture more likely. With the increasing use of local anaesthetic the problem of a patient coughing during the procedure will become more common. In both these circumstances, phacoemulsification gives much better per-operative control of the anterior chamber throughout the cataract operation, as well as giving the well-recognised benefits of the small wound post-operatively.³

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