LETTERS TO THE JOURNAL

Sir,

The Case of the Disappearing Bullet

A 26-year-old policewoman training on a shooting range sustained a rebound injury off a rubber shield resulting in a bullet lodging in her right anterior inferonasal orbit. The end of the bullet was clearly visible and the patient was transferred immediately to casualty. The patient was in pain and distress and was given intravenous pethidine and radiographs taken. The casualty officer reported the bullet

to be lodged in the ethmoid (Fig. 1) and an ophthalmic opinion was sought urgently.

On closer examination the bullet could be seen lying subconjunctivally in the right inferonasal orbit. The patient was admitted whilst further imaging was considered, but an hour later the bullet could not be found!

The vision was 6/9. On slit lamp examination the sclera was intact, there was micro-hyphaema, no traumatic mydriasis and only a conjunctival laceration, which did

(a)

(b)

Fig. 1. Anteroposterior (a) and lateral (b) radiographs showing the bullet lodged in the ethmoid.

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