Figure 2 Invasive squamous cell carcinoma of the lacrimal gland (single arrow) arising from a cyst lined by severely dysplastic squamous epithelium (double arrow). Haematoxylin and eosin, magnification $\times 100$.

epithelial tumours may arise from a pre-existing pleomorphic adenoma, the so-called carcinoma ex-pleomorphic adenoma, but most arise *de novo*.

Primary squamous cell carcinoma of the lacrimal gland is rare. Wright *et al*³ described the characteristics of 50 malignant neoplasms of the lacrimal gland over a 28-year period, and identified only one squamous cell carcinoma. This occurred in a 14-year-old boy, who was alive and well 15 years following local resection and radiotherapy. Font and Gamel⁴ reviewed over 265 cases of epithelial tumours of the lacrimal gland. Of these, they reported only one squamous cell carcinoma that arose in a previous benign mixed tumour 17 years after resection in a 63-year-old lady. Henderson and Farrow⁵ reviewed the features of 10 cases of primary malignant mixed tumours of 764 orbital tumours at the Mayo Clinic from 1948 to 1974; two of these were squamous cell carcinomas. However, in all their cases the malignant component was associated with variable-sized areas of residual benign mixed tumour, and they suggest that these cases represent malignant transformation of the epithelial component of the benign mixed tumour. Pathological examination in our case showed no evidence of benign mixed tumour, but an origin from a squamous-lined cyst was identified.

The lacrimal gland is considered to be a minor salivary gland, and there is a similar report of a squamous cell carcinoma arising within a cyst of the submandibular gland⁶.

Malignant lacrimal gland tumours typically present with a short history and pain. The absence of pain and bony erosion on a CT scan in our case suggested that a benign tumour was likely. This case illustrates a rare

histological variety of lacrimal gland tumour whose clinical features mimicked that of a benign lacrimal gland tumour. To our knowledge, this is the first report describing in detail the clinical and radiological features of primary squamous cell carcinoma of the lacrimal gland.

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Sir,

Choroidal melanoma presenting as a haemorrhagic detachment in a 12-year old

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Choroidal melanoma is the commonest primary intraocular malignancy.¹ Usually seen in the fourth and

fifth decades, it has been rarely reported in children.² We present a case of large amelanotic choroidal melanoma in a 12-year old presenting with a large haemorrhagic retinal detachment.

Case report

A 12-year-old girl was referred to the ocular oncology clinic with a 2-month history of decreasing vision in the right eye. Her past history was unremarkable. She had no other illness or operations in the past and was full term, normal delivery with a normal developmental progress. Ocular examination revealed a visual acuity of perception of light in the right eye and 6/5 in the left eye. Anterior segment was normal in both eyes. The right fundus examination revealed a large haemorrhagic retinal detachment. Accompanying MRI scans revealed the presence of a large mass arising from the superotemporal aspect of the right globe. The mass measured $18 \times 13 \text{ mm}^2$ and was reported to be of homogeneous intensity and showed enhancement following injection of Gadolinium. The appearance was suggested to be of a choroidal mass, which has bled. The signal characteristics were however not characteristic of a melanoma, although the possibility of this diagnosis could not be ruled out. In view of the MRI report, a provision diagnosis of a choroidal lesion was made and an ocular ultrasound and CT scan were performed to confirm the presence of the mass, its extent and to rule out presence of calcification (Figure 1a and b). The investigations did confirm the presence of the mass, but did not demonstrate any microcalcifications. A provisional diagnosis of a choroidal melanoma was made, but in view of the rarity of the same in the age group a transvitreal biopsy was performed. The biopsy showed spindle-shaped cells with a prominent eosinophilic cytoplasm, but no pigmentation. On immunochemistry, the cells stained for HMB45 and S100 protein, but were negative for cytokeratin MAC387, CMS.2 and AE1+3 and for Qbend10, PGM1 (CD 68), myoglobin, desmin and smooth muscle antigen. The appearance was reported to be that of a malignant melanoma, consistent with a primary uveal site. The child was subsequently investigated to ensure that there was no evidence of systemic metastasis. In view of the nature and extent of the lesion and the visual prognosis, an enucleation of the left eye was advised. The child subsequently underwent enucleation of the left eye with insertion of a medpore implant. Histology confirmed the posterior segment tumour as an amelanotic choroidal malignant melanoma of spindle (B) type. Subsequent follow-up of over a year was uneventful.

Figure 1

Comment

Uveal melanomas in children are rare as compared to adults.³ Although the clinical appearance and prognosis of these lesions have been reported to be similar to that seen in adults,⁴ some studies have reported them to bear a more favourable prognosis in children.⁵ The average incidence of the same in children ranges from 0.6 to 1.65%, with only 22% of these patients being below the age of 15 years⁶ making an incidence of 0.12% in children under the age of 15. Our patient falls into the rarest of these groups.

Presentation of a choroidal melanoma as a large haemorrhagic detachment in children, to the best of our knowledge, has not been described before. Although accompanying MRI had shown a choroidal mass, ocular

ultrasonography was however not able to demonstrate the exact extent of the mass.

The present case of a choroidal melanoma presenting as a haemorrhagic retinal detachment reemphasizes the fact that, although uveal malignancies are very rare in children, they should however be considered while evaluating an atypical presentation. Ocular ultrasound, although a useful aid in the diagnosis of choroidal tumours, can occasionally be nonconclusive, especially in the presence of a haemorrhage. MRI of the eye in these conditions is shown to be the investigation of choice in determining the nature and extent of the lesions.⁷

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Sir,

Uric acid crystals presenting as an orbital mass
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Uric acid is a product of purine metabolism. The deposition of such crystals is seen in cases of hyperuricaemia that can present as gout. It is usually

idiopathic and caused by either an overproduction of uric acid (phosphoribosyl transferase deficiency) or reduction in renal urate excretion. It may also be due to secondary causes such as myeloproliferative disorders and blood dyscrasias. However, the deposits of such crystals in gout are usually in soft tissues of joints and the ear, although deposits in the eye¹ and deposits causing spinal cord compression have been described.² We describe the case of an orbital mass in a healthy man, which on histopathological analysis consisted of uric acid crystals.

Case report

A 41-year-old man presented with a 1-month history of an ache around the left eye associated with a left ptosis. On examination, the palpebral fissure measured 8 mm compared to 12 mm on the right. Visual acuity and ocular motility were unimpaired. There was loss of the upper lid sulcus and a soft mass palpable in the superolateral aspect of the orbit. This gentleman was fit and well with no serious past medical history or regular medications.

CT scan revealed a 2 cm superolateral mass extending into the frontal bone to lie in the medullary cavity of the skull. There was no intracranial extension. MR imaging was performed on a 1.5-T system (Philips Gyroscan ACS-NT) (Figures 1–3). This showed a well-demarcated but lobulated area of heterogeneous high signal intensity on all sequences arising from the bone of the upper outer orbit wall.

The patient consented for exploration and biopsy of the lesion with possible exenteration due to the

Figure 1 Coronal T1-weighted spin-echo (WSE) fat suppression scan. Lesion of left orbit demonstrating high signal intensity.