enclosed by periosteum. A few case reports have shown, however, that the lesions may also contain cancellous bone with areas of haematopoietic marrow. This therefore implies that osseous choristomas can develop either from a membranous or a cartilaginous mesenchymal template.[6]

Clinically, episcleral osseous choristomas may be confused with epibulbar dermoids. Bonuik and Zimmerman,[7] in an article published in 1962, outlined the differences. Epibulbar dermoids are more commonly found in the inferior temporal quadrant. Thirty per cent of cases are associated with congenital anomalies involving malformations of the branchial arch derivatives, e.g. Goldenhar's syndrome. Histologically they consist of collagenous connective tissue covered by epithelium. It is important to remember, however, that epibulbar dermoids rarely contain bone tissue in addition to the dermis-like tissue and may hence pose a diagnostic radiological dilemma on skull radiographs or CT scans.

The aetiology and pathogenesis of these rare lesions remain obscure. They have no effect on vision and are not associated with any syndromes. Management is initially conservative. Surgery is indicated if the lesion becomes cosmetically unacceptable or symptomatic. The tumour is loosely attached and therefore easily shelled off the surface of the sclera.

To our knowledge, there have been no reports of recurrences or malignant transformation of episcleral osseous in the literature.

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Sir,

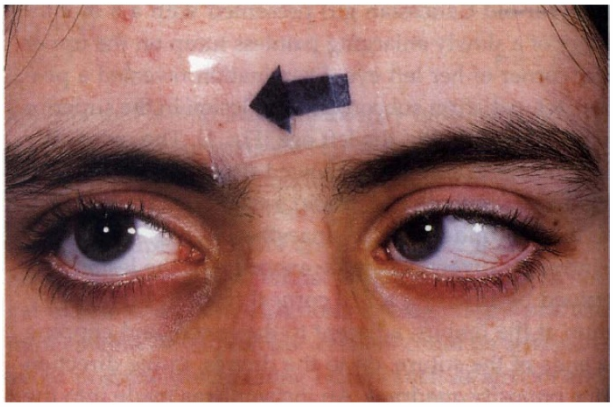
Symptomatic arachnoid cyst presenting as a sixth nerve palsy

Arachnoid cysts are a rare cause of ocular nerve palsies. These cysts are usually asymptomatic but intracyst haemorrhage or the development of a subdural haematoma may result in symptoms. This case report highlights how the post-traumatic rupture of one such cyst resulted in signs and symptoms of raised intracranial pressure despite the lack of haemorrhage seen on CT scan. This is an infrequent but recognised complication that initially presented to the ophthalmology department.[1]

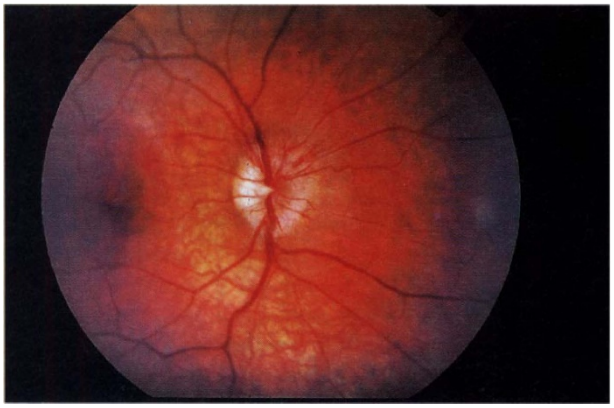
Case report

Three weeks after the vigorous to and fro shaking of the head (colloquially known as 'head-banging') at a heavy metal concert a 14-year-old male presented to eye casualty with an occipital headache and a 3 day history of diplopia. On questioning further he stated that the headache had begun after the concert and been associated with neck discomfort. The headache had been steadily increasing in severity since the concert. It was worse on waking in the morning and aggravated by coughing. The headache was also associated with nausea and the patient had vomited once with the pain.

On examination vision was 6/6 in both eyes. He had a right convergent squint that measured 6 dioptres for near and 25 dioptres for distance. Ocular movements confirmed the presence of a right sixth nerve palsy (Fig. 1a). Fundal examination revealed early papilloedema of the right disc (Fig. 1b). The left disc



(a)



(b)

Fig. 1. *(a) Right sixth nerve palsy. (b) Early papilloedema of the right optic disc.*

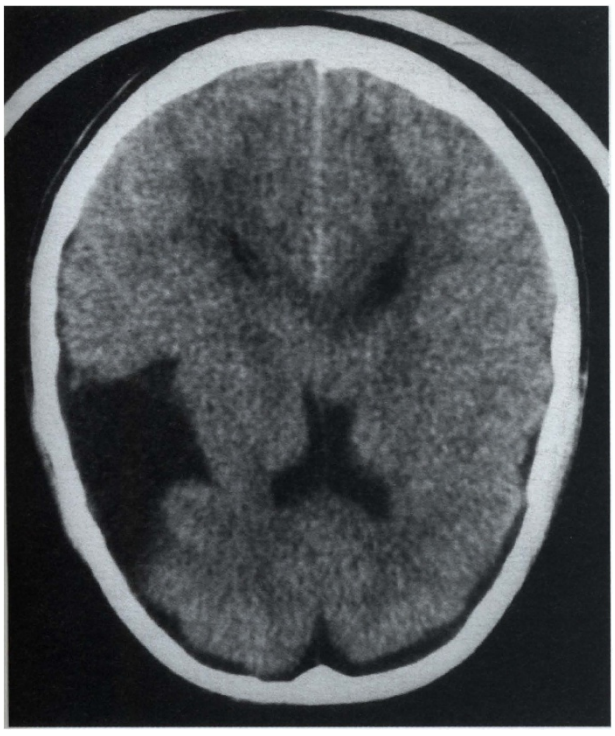


Fig. 2. *Transverse CT scan showing a right-sided arachnoid cyst.*

appeared normal although spontaneous venous pulsation was absent. Pupils were equal and reactive to light. The remaining ophthalmological and neurological examinations were normal.

A CT scan brain was performed which showed the presence of subdural fluid over both hemispheres of the brain and a moderate-sized arachnoid cyst lying in the region of the right temporal fossa and Sylvian fissure (Fig. 2). Mass effect was also noted, with compression of the right lateral ventricle and almost complete effacement of the third ventricle with slight midline shift. The low-density subdural fluid was felt to probably indicate recent rupture of the cyst or subdural haemorrhage, which had entered the chronic stage.

In view of the progressive symptoms and signs of raised intracranial pressure decompression of the arachnoid cyst was carried out. At craniotomy a large quantity of yellowish subdural fluid was extruded under pressure. Histological examination of the excised cyst membrane confirmed the presence of a simple arachnoid cyst with some evidence of recent haemorrhage.

One month following the procedure the headaches and sixth nerve palsy had almost completely resolved.

Comment

Arachnoid cysts are benign developmental cavities that are frequently located in the middle cranial fossa. CT and more recently MRI scanning have proved in many case series to yield the definitive diagnosis as well as to illustrate the fact that many arachnoid cysts are clinically asymptomatic.[2]

Cranial nerve palsies are infrequent accompaniments to subarachnoid cysts, occurring either as a result of compression by the cyst[3,4] or secondary to raised intracranial pressure.[5,6] The latter may be the result of bleeding into the cyst and subdural space from relatively trivial head trauma. The initial bleed may result in headache and meningeal irritation with its associated neck stiffness. Rarely cases like this one may occur in which no definite haematoma is demonstrable on CT scan.

There are four possible explanations for this. The first is that the vigorous shaking of the head caused a minor degree of bleeding from bridging veins within the cyst or cyst wall. The blood could then have flowed from the cyst and mixed with the CSF, to give the low-density subdural fluid seen on scans. This would only occur if there was direct communication between the cyst and subdural space and this can sometimes only be ascertained by specialised techniques, which were not performed in this case.[2] Alternatively there may have been bleeding from fragile leptomeningeal vessels into the subdural space, which then mixed with the CSF from the ruptured cyst to give a similar appearance. Thirdly subdural haematomas become less dense as time progresses so by 3 weeks the haemorrhage would not be as dense as it once was on scan. Finally bleeding into the cyst may result in a change in the osmotic gradient of fluid within the cyst causing CSF to accumulate by direct filtration as well as the normal process of secretion by the arachnoid cells themselves.[7] This may lead to a gradual increase in the size of the cyst over a number of weeks leading to progressively rising intracranial pressure. All these processes either individually or together would account for the patient's delayed presentation of signs and symptoms suggestive of raised intracranial pressure, that is worsening headaches, the development of papilloedema (which in its early stages is notoriously difficult to diagnose and in which disc swelling may initially be asymmetric) as well as the development of a false localising sixth nerve palsy.

In summary, this case illustrates how a previously asymptomatic arachnoid cyst may present to the ophthalmologist with only a history of minimal trauma.

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Sir,

Massive extraocular extension as the presenting feature of a choroidal melanoma

It is uncommon for patients to present with extensive extraocular involvement as the primary presenting feature of uveal melanoma. However, in patients who are asymptomatic and do not seek ophthalmic evaluation or in those who refuse recommended treatment and allow tumour growth to continue, advanced progressive disease may occur. We report a case of a small choroidal melanoma presenting with massive extraocular extension, which was associated with minimal symptoms. Its appearance mimicked that of a lacrimal gland tumour. Despite the unusual clinical presentation, a diagnosis of melanoma was reached by biopsy of this extrascleral lesion.

Case report

A 58-year-old woman was referred to the Ophthalmic Oncology service at the Tennent Institute in Glasgow in October 1998. She had noticed a progressive enlarging mass on the superotemporal aspect of the left globe over the previous 3 months, which caused some discomfort. Past medical and ocular history were unremarkable. Ophthalmic examination revealed a visual acuity of 6/60 in the affected eye and a relative afferent pupillary defect. There was a pigmented bulbar mass in the superotemporal quadrant of the left globe restricting ocular movements (Fig. 1). Fundoscopy showed a small choroidal melanoma, 3 mm in height and 5 mm in diameter, in the posterior pole of the same eye. Examination of the right eye was unremarkable.

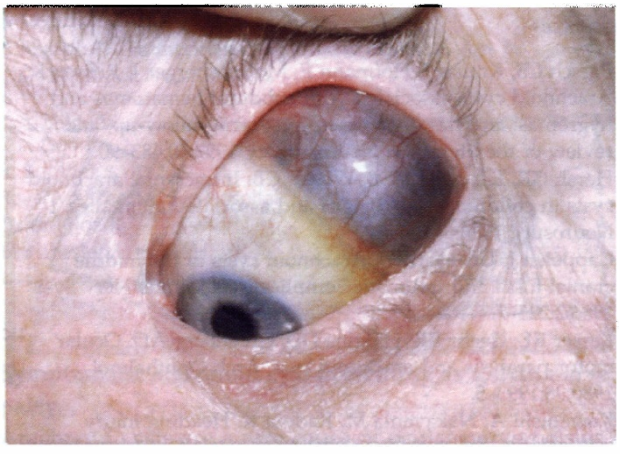

Fig. 1. *Pigmented bulbar mass in the superotemporal quadrant of the left globe at presentation.*

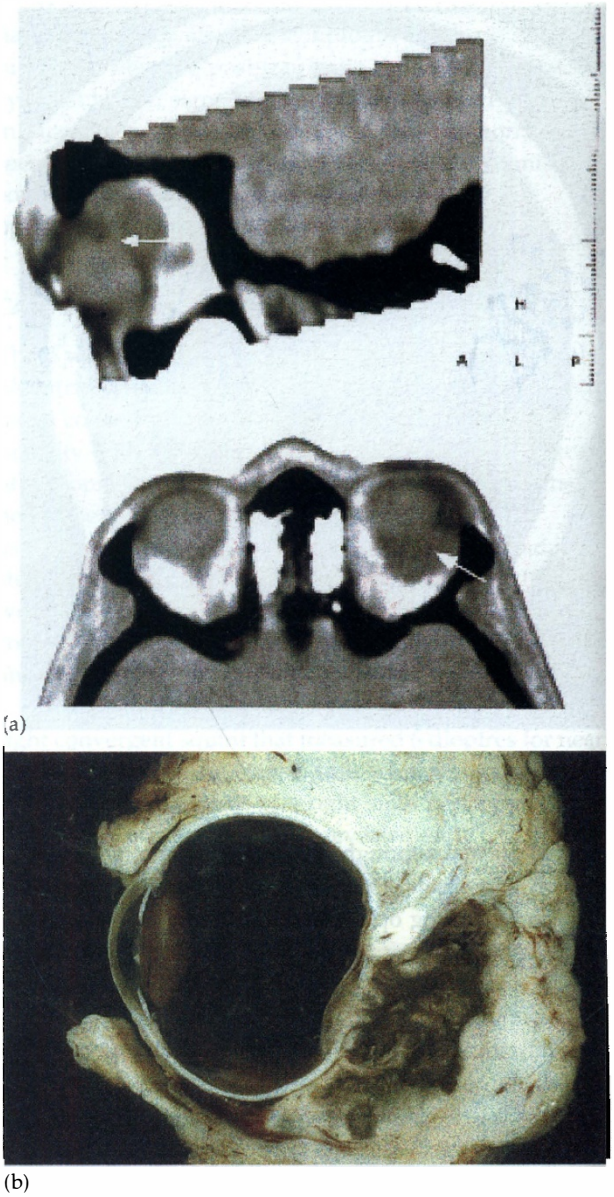

Fig. 2. *(a) CT scan demonstrating a defect in the sclera allowing continuity between intra- and extraocular contents (arrow). (b) Exenteration specimen showing massive extraocular spread..*

A CT scan confirmed a solid extraocular mass lying on the superolateral aspect of the left globe and extending back as far as the optic nerve. Differential diagnoses included extrascleral extension of a choroidal melanoma, a lacrimal gland tumour, a lymphoma, a pseudotumour or a metastatic deposit. The scan also demonstrated a defect in the sclera allowing continuity between intra- and extraocular contents (Fig. 2a). A metastatic screen including chest radiograph, liver function tests and liver ultrasound were normal.

The patient had an exenteration of the left orbit with preservation of eyelid skin. A peroperative biopsy of the extraocular mass revealed a spindle cell melanoma. Pathological examination of the exenteration specimen