CASE REPORT

Unusual funduscopic manifestations of an ethmoidal mucocele

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The following case illustrates how an orbital tumour may mimic a posterior segment mass on funduscopy by virtue of its indentation of the globe. Imaging techniques are shown to be vital in the elucidation of the true pathology.

Case report
A 30-year-old woman complained of severe throbbing pain in the right orbital region, associated with lacrimation and nausea, which had been intensifying over a 3 week period. She had not experienced diplopia or other visual disturbances.

She had no previous ophthalmic or medical history of note, had not suffered from sinusitis or facial trauma, and was not using medication. On examination, the visual acuities were 6/9 right eye and 6/5 left eye and the pupil responses normal. She had a 4 mm non-axial proptosis, the right globe being deviated inferotemporally. Palpation of the orbital rim and regional lymph nodes showed no abnormality and percussion of the sinuses was not painful, extraocular movements were full and did not evoke diplopia. The globe was non-pulsatile with normal retroulsion and no vascular bruit. The anterior segment was congested, the anterior chamber quiet, and the intraocular pressures were 24 mm Hg right eye and 18 mm Hg left. On funduscopic, vertical choroidal folds involving the posterior pole were seen (Fig 1A). There was an apparent dark choroidal mass involving 5 clock hours of the extreme nasal periphery without overlying retinal detachment, haemorrhage, or vitritis (Fig 1B). No abnormalities were detected in the left eye or on general physical examination.

The clinical findings suggested a primarily ocular pathology with extrascleral involvement, such as posterior scleritis or a choroidal tumour with extrascleral spread.

Subsequent ultrasound investigation of the right orbit revealed an acoustically empty, extraocular mass of similar proportion to the eye, lying nasally in apposition to and indenting the globe (Fig 2A). Axial and coronal computed tomographic scans demonstrated a well circumscribed cyst, 2.5 cm in diameter, originating from the ethmoidal sinus (Fig 2B). On the basis of these examinations, an ethmoidal mucocele with orbital extension was diagnosed and transnasal endoscopic marsupialisation and drainage performed. Histopathological examination confirmed the diagnosis.

Two days postoperatively the patient was pain free, the visual acuity improving to 6/5 with resolution of the proptosis. The choroidal folds were diminished in number and the apparent pigmented mass had disappeared.

Comment
Mucoceles are cystic tumours which may erode through the bony sinus wall to reach the orbit or dura. Ethmoidal mucoceles may arise when facial trauma, surgery, sinusitis, or tumours obstruct the ducts which drain mucoid secretions, via the ethmoidal labyrinth, into the nasal cavity. Ophthalmic manifestations may include restrictive ophthalmoplegia, proptosis, and...
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