LETTERS TO THE JOURNAL

Sir,

Cavernous Haemangioma of the Orbit: Treatment by Transconjunctival Cryoextraction

Cavernous haemangioma is considered the most common orbital tumour.[1] The classic approach for removal of cavernous haemangiomata of the orbit has been by lateral orbitotomy.[2] Recently, there have been some reports of simplified procedures for removal of these tumours, such as large superior orbitotomy.[3] We have published a simplified procedure in order to reduce surgical morbidity by a safe, simple and minimally invasive technique using a transconjunctival cryosurgical approach.[4] Shields uses the same technique, but probably only for selected anterior orbital tumours.[5,6] In 1989, Leatherbarrow *et al.*[7] reported on three cases of medially located orbital cavernous haemangiomata managed by medial orbitotomy combined with medial orbital decompression. We agree with the authors that these three tumours should not have been approached by a lateral orbitotomy. However, we think that they could have been removed less traumatically by a transconjunctival approach without bone destruction.

To prove our point we wish to describe two medially located orbital haemangiomata treated by a transconjunctival approach. One tumour (Fig. 1) was very similar in size and location to the first case described by Leatherbarrow *et al.* The second tumour (Fig. 2) was much larger and on CAT scan was found to be partially enveloping the optic nerve. Nevertheless, it was successfully removed by cryoextraction through a medial transconjunctival approach (Fig. 3).

With the use of CAT scan and ultrasound modalities the diagnosis and localisation of cavernous haemangiomata has become very accurate, being close to 100%.[8,9] As the diagnosis can be very well established pre-operatively, and since haemangiomata are compressible, soft and encapsulated lesions, a wide exposure is not required for their removal. We believe that transconjunctival cryoextraction of cavernous haemangiomata should not be reserved for small tumours located anteriorly, but is also effective for large tumours located anywhere in the orbit. Haemangiomata can therefore be successfully removed by transconjunctival cryoextraction regardless of size and location. We have used this technique since 1981, and have operated on a total of 33 patients. The tumours were located both temporally and nasally, superiorly and inferiorly; some were very large. The complications observed were mild chemosis of the lids and conjunctiva in the first

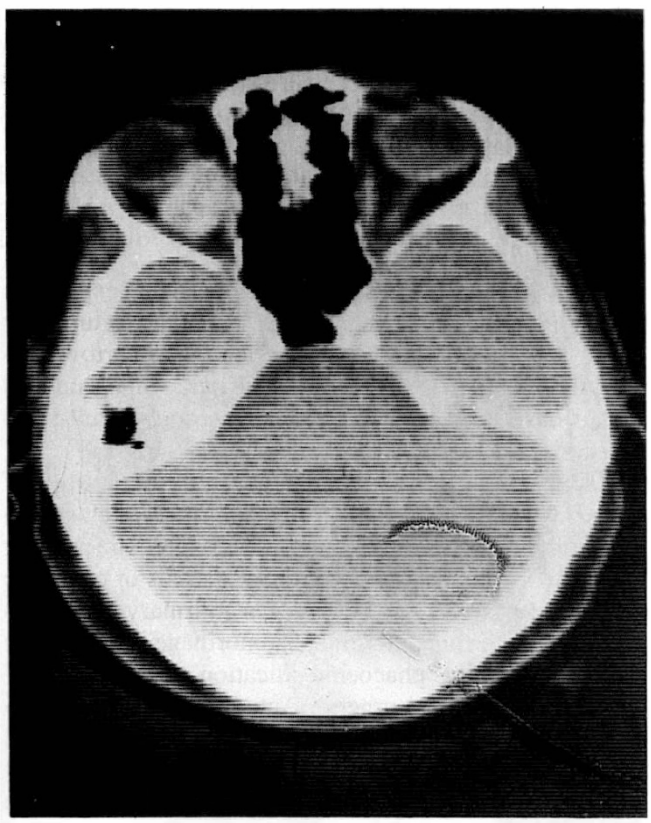

Fig. 1. *Case 1. Pre-operative CAT scan demonstrating cavernous haemangioma.*

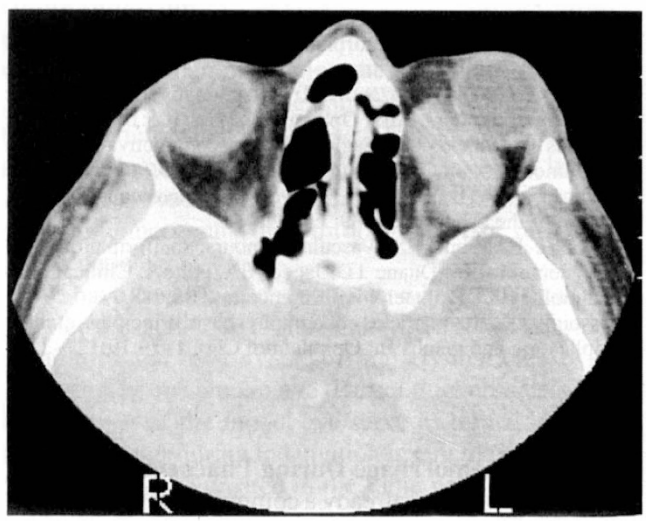

Fig. 2. *Case 2. Pre-operative CAT scan demonstrating cavernous haemangioma.*

Fig. 3. *Case 2. Presentation and removal of cavernous haemangioma with a cryoprobe.*

post-operative week in all patients, and long-lasting mydriasis, probably as a result of damage to the ciliary ganglion, in four patients. If, in a difficult situation, this technique proves inadequate, it is always possible to revert to lateral orbitotomy.

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Sir,

Expulsive Haemorrhage During Phacoemulsification

Phacoemulsification, already a commonly performed procedure in the United States, is attracting considerable interest in the United Kingdom. Although according to a recent survey only 2% of surgeons currently use it routinely, this percentage will very probably increase.[1] I wish to report a complication which highlights an advantage of the procedure compared with the conventional extracapsular operation.

Case Report

An 86-year-old woman was admitted for overnight-stay cataract surgery. She had bilateral cataract worse in the right eye which could see 6/60 aided and 6/18 pinhole. Local anaesthesia was achieved with retrobulbar 2% plain lignocaine and a facial nerve block, and no sedation was used.

The approach was through a scleral tunnel incision made with a 3 mm keratome approximately 3–4 mm from the superior limbus, with a paracentesis for a second instrument. A wide can-opener capsulotomy was followed by phacoemulsification in the pupillary plane. Removal of cortical lens matter was completed using automated irrigation–aspiration. Haelon was injected into the anterior chamber to prepare for intraocular lens insertion; however, serious problems became apparent as the chamber could not be deepened and the viscoelastic extruded from the tunnel as fast as it was injected. The eye was stone hard to palpation. Nevertheless the tunnel incision remained self-sealing and did not allow fluid out of the eye unless an instrument was introduced along it. There was no iris prolapse. Indirect ophthalmoscopy revealed a shallow choroidal haemorrhage inferotemporally. No attempt was made to insert an intraocular lens and the wound was closed with a single horizontal 8/0 vicryl suture. Intravenous acetazolamide and topical timolol were given to moderate the intraocular pressure.

The post-operative acuity was 6/6 with an aphakic correction. A diagnosis of bilateral open angle glaucoma was made 3 months after the operation.

Discussion

It seems likely that an acute suprachoroidal 'expulsive' haemorrhage had occurred which was limited fortuitously by the watertight valve-like properties of the narrow incision. Iris prolapse and extrusion of intraocular contents would have been almost inevitable through a full-sized incision.

Expulsive haemorrhage, a much feared complication of intraocular surgery, is thankfully rare after cataract surgery and, for example, occurred in 0.15% of extracapsular and phacoemulsification cataract operations in one large series at the New York Eye and Ear Infirmary.[2] The incidence of acute suprachoroidal haemorrhage is apparently not higher during phacoemulsification than in conventional extracapsular surgery.[3] Actual extrusion of intraocular contents may not occur through a small incision; nevertheless the wound should be rapidly and securely sutured as soon as the complication is suspected.[4] The greater intrinsic security of a small wound as exemplified here will be reassuring to surgeons learning phacoemulsification, who will feel vulnerable during a prolonged procedure to a variety of operative complications.