evidence of a distinctive histopathologic process in the retinas and optic nerves of patients with Alzheimer's disease. The changes, which included degeneration and loss of axons, were noted in the optic nerves obtained from most of the patients with Alzheimer's disease examined and were easy to distinguish from changes due to aging in a normal control group. The largest retinal ganglion cells, the M-cells, seemed to be selectively involved. Whether these cells are the same large-size ganglion cell population that is affected in glaucoma[8] is not known. There was no retinal but intracranial neurofibrillary degeneration of amyloid angiopathy in optic nerves, which is typically seen in the brains of patients with Alzheimer's disease. By contrast, there is evidence of buildup of amyloid-β in retinal ganglion cells in rats with experimental glaucoma (McKinnon SJ, Paper at the Subspecialty Day *Glaucoma 2000*, American Academy of Ophthalmology, Dallas, Texas, October 2000). Glaucoma may be a chronic neurodegeneration like Alzheimer's disease, and a slow buildup of amyloid-β in the ganglion cell eventually triggers cell death and optic nerve axon loss.

We performed a retrospective chart review and found a more severe progression of glaucomatous visual field defects with corresponding enlarging cup-to-disk ratios in POAG patients with Alzheimer's disease than one would expect in patients with glaucoma. The striking feature of our results is the severe progression of glaucomatous optic neuropathy among patients with Alzheimer's disease when compared to glaucoma patients[3,4] without Alzheimer's disease. We are unaware of previous cases of severe progression of glaucomatous optic neuropathy in patients having Alzheimer's disease and can find no such references in a computer search using the PubMed database (National Library of Medicine). In a very recent clinical study, we reported an association of glaucoma with Alzheimer's disease.[9] However, the validity of our study is not optimal because of possible selection bias, lack of masked observers, and the lack of objective optic disc photographs. In addition, in none of the patients was the diagnosis of Alzheimer's disease confirmed by histopathology. For that reason, this retrospective chart review should serve to alert physicians as to the association of these two diseases and needs to be further studied in a more rigorous nature.

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Sir,

Uncomplicated phacoemulsification—should we see our patients the following day?

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Phacoemulsification with a small self-sealing incision is currently the commonest method of cataract surgery in the UK, and is increasingly becoming a day case procedure.[1]

There remain however, unresolved issues with

regard to postoperative review. National policy[2] is not evidence-based; different surgeons have varying individual protocols. Some propose a single postoperative review incorporating refraction at 3–6 weeks[3] with patient self-referral for any interim complications. With regard to earlier review, some advocate same or following day review,[4,5] whilst others are willing to dispense with this altogether.[6]

Suggested reasons for review on the first postoperative day include the detection and management of early complications, patient education regarding postoperative care, technical feedback for the surgeon and patient perceptions of the necessity of review.[7]

We report a case of uncomplicated phacoemulsification with severe asymptomatic postoperative ocular hypertension.

Case report

A 65-year-old man underwent uncomplicated second eye phacoemulsification with intraocular lens implantation, through a temporal clear corneal incision. A single 10/0 nylon suture was used to seal the wound following failure of corneal hydration. Preoperative unaided visual acuity was 6/18, improving to 6/9 with pinhole. The other (pseudophakic) eye had an unaided acuity of 6/6.

At first postoperative day review the patient reported subjective visual improvement despite mild discomfort overnight. The acuity remained unchanged at 6/18, improving with pinhole to 6/6. Slit-lamp examination revealed mild conjunctival injection, well-sealed corneal incisions, mild diffuse corneal epithelial oedema and 1+ cells in the anterior chamber. The intraocular pressure measured 66 mmHg.

Three hours later, despite the administration of 500 mg of oral acetazolamide, the intraocular pressure had risen to 74 mmHg. Removal of the nylon suture had no effect on the IOP; aqueous was therefore released, by pressure on the wound margin with a sterile 26 gauge needle, reducing intraocular pressure to 22 mmHg.

At discharge the following morning the intraocular pressure measured 26 mmHg. Subsequent follow-up was uneventful.

Comment

Despite dangerously elevated intraocular pressure, this intelligent and articulate patient with previous experience of cataract surgery perceived his discomfort and hazy vision as normal and did not mention them until specifically asked. If not for early review, he would certainly have been subject to significant risk of permanent visual damage.

The frequency of clinical intervention on the first postoperative day reflects the incidence of complications.[8] Intervention rates of around 3% have been documented,[5,9] involving complications such as corneal abrasions, iris prolapse, corneal oedema and most commonly, elevated intraocular pressure, which left untreated, can result in irreversible optic neuropathy.[8] It is however, worthy of note that most case series report selected cohorts of patients; isolated case reports therefore serve the valuable function of drawing attention to problems that may arise in everyday circumstances, involving a wide variety of patients and surgeons.

Apart from its efficacy as a screening tool for early complications, first-day review also affords valuable feedback to improve surgical technique.[10] Cataract surgery in the UK is commonly performed by ophthalmic trainees. It is significant that, even during closely supervised surgery, it can be difficult for the supervising surgeon to judge the completeness of aspiration of viscoelastic at the conclusion of the procedure, so essential to the prevention of post-operative ocular hypertension. Moreover, when the surgery is performed by a non-expert trainee (even if supervised), early review would intuitively appear to be a sensible practice, especially when it is considered that this involves but a brief examination with no history taking, the surgeon being familiar with the history and operative procedure.

Dispensing with early postoperative review certainly presents financial advantages and adds to patient convenience; however, we submit that the risks entailed, though small, perhaps do not justify this measure at least until evidence based national guidelines are available.

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