the a1A-adrenergic receptors on the iris dilator muscle, resulting in disuse atrophy of the muscle; this in turn affects iris rigidity.[1] Controversy exists over the receptor subtypes present in the prostate and the precise mechanism of action of this type of agents.[2–4] Recent experience in our unit is in accord with Chang's report;[1] the majority of patients treated with tamsulosin undergoing cataract surgery seem to display the features of IFIS. We have noted no benefit from the temporary cessation of treatment preoperatively.

The case we present here was, we believe, typical of IFIS. We are not aware of any previous reports of IFIS in patients treated with a1-adrenergic receptor blockers other than tamsulosin. It has been suggested that the a1A-subtype selectivity of tamsulosin might be accountable for the clinical manifestation of IFIS.[1] Alfuzosin, although not a1A-subtype-selective *in vitro*,[2,3,5–9] displays uroselective properties *in vivo*.[5–7] We postulate that the overall *in vivo* affinity of the a1-adrenergic receptor blockers towards a1A-subtype receptors might be responsible for IFIS rather than the *in vitro* a1A-selectivity *per se*.[2,7]

We agree with previous authors that preoperative recognition of patients at risk of IFIS allows for appropriate surgical planning in anticipation of IFIS, with the intention of reducing the risk of preoperative complications.[1] It is our practice to insert, at commencement of surgery, disposable flexible translimbal iris retractors in a diamond configuration, as described by Oetting and Omphroy.[10] This seems to allow the operation to be completed safely and with little added difficulty.

We believe that surgeons should anticipate IFIS in patients taking alfuzosin, in addition to those taking tamsulosin, and quite possibly in patients taking any of the uroselective a1-adrenergic receptor blockers. We are not aware of any reports of the nonuroselective a1-adrenergic receptor blockers causing IFIS.

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Sir,

Ocular trauma caused by a loose slip-lock cannula during corneal hydration

It is easy to become complacent when using such widely used medical instruments as needle and syringes. Needle and syringe systems have many uses in modern day ophthalmic surgical practice. There are two main types of system commonly used: push-fitting 'slip-lock' systems, where the needle hub is pushed

onto the tip of the syringe and held by friction, and screw-fitting 'luer-lock' systems. Iatrogenic orbital needle stick injuries have been reported, especially with slip-lock systems where needles have become accidentally dislodged during procedures, some with sight threatening consequences.[1–3] This case report describes a situation where a slip-lock cannula dislodged under high pressure during the stromal hydration step of what was otherwise a routine cataract procedure. It entered the eye at high velocity and resulted in iris perforation, zonule rupture, hyphaema, and vitreous haemorrhage. This case and others emphasise the need to change over to luer-lock systems for intraocular procedures.

Case report

A 57-year-old caucasian male underwent elective left eye phacoemulsification procedure under topical anaesthesia for a symptomatic posterior subcapsular cataract. Preoperative snellen acuities were 6/9 in the right eye and 6/60 in the left eye.

The operation was performed under topical anaesthesia via a superior 2.7 mm clear corneal incision. After an uncomplicated capsulorrhexis, phacoemulsification, and manual irrigation/aspiration, the corneal wound was then extended up to 2.9 mm for implantation of a 26 D Acrosoft intraocular lens (IOL). Insertion of the lens was without any problems and healon was then removed from the anterior chamber and capsular bag.

A 5 ml plastic syringe containing balanced salt solution attached to a slip-lock lacrimal cannula was prepared with the intention of hydrating and sealing the corneal wound. Tight fit of the cannula was confirmed before starting. With the end of the needle approximated inside the nasal aspect of the patients' corneal section, pressure on the syringe driver was steadily increased to achieve stromal hydration. Everything was proceeding routinely, then suddenly and unexpectedly the needle flew off the syringe at high velocity before vanishing from sight. The patient was examined instantly. Small amounts of vitreous and blood had appeared in the anterior chamber and there was a small hole in the iris in the 3 o'clock position. The capsular bag and IOL seemed secure and no obvious initial retinal damage was seen with the indirect ophthalmoscope. The needle was found in the plastic side pocket of the sterile drape covering the patient and must have ricochet back out of the eye, perhaps after colliding with the plastic lens.

After a few minutes the bleeding ceased and the anterior chamber was washed out to clear the debris. The patient was kept for observation for a couple of hours following which slit lamp examination showed no significant problems. He was sent home to come back the next day for a further review.

The next day the patients' vision was 6/60 in the pseudophakic left eye, and no improvement with pinhole. The anterior chamber was cloudy and there was a 2 mm hyphaema present, plus the small perforation in the iris at 3 o'clock. Intraocular pressure was 15 mmHg. The IOL appeared stable. The fundal view was hazy secondary to a large vitreous haemorrhage. A B-mode ultrasound scan was performed and the underlying retina appeared flat. The hyphaema was treated with bed rest and topical therapy and he was closely monitored over the next few weeks.

His vision steadily improved and as the media cleared there was no sign of retinal damage. At 5 weeks postoperative his vision was 6/9 with no adverse outcomes.

Comment

This is not the first time that slip-lock cannulae have been reported to be involved in ophthalmic surgical accidents after dislodging under pressure. Exactly the same scenario during stromal hydration has been described before.[1] There has also been a report of a cannula flying loose inside the eye during injection of viscoelastic during cataract surgery, resulting in a retinal break.[2] It is probable that there have been other cases which have been unreported.

From time to time, we are reminded of the potentially devastating consequences that can arise from a mechanical failure of instruments during surgery. Needle and syringe systems have multiple uses in ophthalmology and are possibly the most commonly used instruments in modern intraocular surgery. Corneal stromal hydration, involves significant force, and that the joint between the tip of the syringe and cannula should be able to withstand the pressures involved. Since this accident happened, we have changed all needle and syringe systems used in our department to the more secure luer-lock screw fitting type to reduce the risk of future accidents.

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Sir,

Giant cell arteritis—part of a spectrum of autoimmune disease?

Primary biliary cirrhosis and hypothyroidism are autoimmune diseases with a female preponderance. Giant cell arteritis (GCA) is a vasculitis, possibly of autoimmune aetiology. It is a rare cause of third nerve palsy. We report a case of biopsy-proven GCA causing painful third nerve palsy in a patient with biopsy-proven primary biliary cirrhosis and hypothyroidism. We discuss GCA as part of a spectrum of autoimmune disease.

Case report

A 68-year-old lady, with hypothyroidism and primary biliary cirrhosis (PBC) (Figure 2a), presented to eye emergency clinic with painful third nerve palsy (Figure 1) without pupillary involvement. The ESR was elevated at 68 mm. The diagnosis was presumed to be due to temporal arteritis, and high-dose oral steroid was started. A temporal artery biopsy (Figure 2b) performed next day was positive for GCA. Headaches improved steadily on treatment. ESR (Erythrocyte sedimentation rate) dropped significantly to normal levels 1 week after starting high-dose steroid. Third nerve palsy fully recovered by the fifth month.

Comment

GCA is the most common form of systemic vasculitis in adults,[1] affecting medium and large-sized arteries.

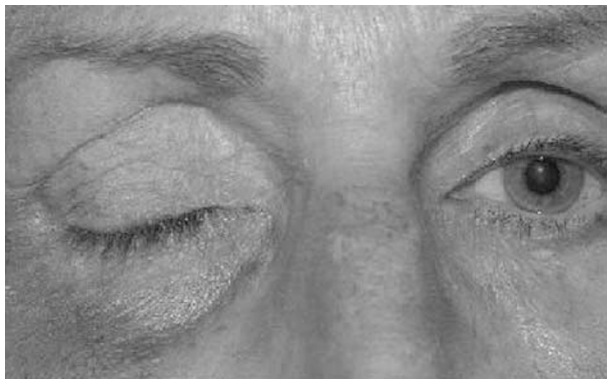

Figure 1 Total ptosis of right eye due to third nerve palsy.

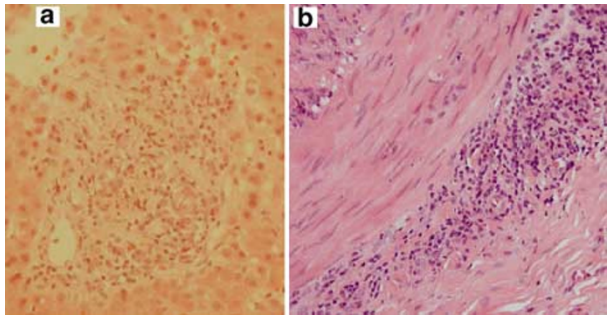

Figure 2 (a) High-power photomicrograph of a granuloma within a portal tract. (b) Medium-power photomicrograph of temporal arterial wall showing intimal proliferation, inflammation, and giant cells.

Immunological processes have been implicated in the development of GCA. Deposits of immune complexes and complement have been found in some temporal artery biopsies.[2] Anti-IgG activity has also been identified in artery biopsy specimens.[3] Recently, a model for the pathogenesis of GCA proposed by Weymann and Goronzy[4] suggests a cell-mediated aetiology. Approximately 30% of patients with GCA have neurologic manifestations.[5]

PBC is an autoimmune disease, leading to progressive destruction of small intrahepatic bile ducts. A survey among a cohort of patients with PBC showed that it is associated with an increased risk of other autoimmune disorders.[6] A survey of thyroid function in patients with PBC revealed the presence of thyroid antibodies in 26% of patients.[7] A nationwide survey in Japan found autoimmune thyroiditis to be associated with primary biliary cirrhosis in 5.8% of cases.[8] Gordon and Isenberg suggest that there is an overlap between polmyalgia rheumatica (PMR) and GCA with autoimmune thyroid dysfunction.[9] Dent and Edwards,[10] in their series of 250 patients with autoimmune thyroiditis, noted PMR or GCA in 2.8% of patients. Gagnerie *et al*[11] report PBC, GCA, and PMR in a single patient. The common