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Sir,
Management of perforating globe injury from a nail gun with intraocular C3F8

Ocular trauma is the leading cause of monocular blindness worldwide¹ and intraocular foreign bodies (IOFBs) are a major contributor accounting for approximately 17–41% of cases.² We present an unusual trauma case, whereby C3F8 gas escaped into the orbit resulting in surgical emphysema.

Case report

A 37-year-old man had an accidental perforating injury while using a pneumatic nail gun in the left eye. Examination revealed hand movement (HM) acuity, a 3.8 mm corneal laceration, shallow anterior chamber with hyphema (0.5 mm), iris sphincter tear, and anterior lens capsule disruption with temporal dislocation of the lens. Owing to vitreous haemorrhage, fundus examination was not possible but retinal detachment was excluded on orbital ultrasound. Figure 1a (X-ray) demonstrates the close proximity of the IOFB to the superior orbital roof.

The patient underwent a three port pars planar vitrectomy (PPV) with lensectomy. The nail had perforated the retina inferotemporal to the disc and was pulled out through the corneal wound revealing a gaping round hole at the posterior pole. During IOFB removal, a self-limiting suprachoroidal haemorrhage (SCH) developed inferiorly. The eye was subsequently filled with 14% C3F8 gas to tamponade the posterior retinal defect and the patient was asked to posture face down.

At the first postoperative day, 60% gas fill was detected but on the third day only 10% gas fill remained with surgical emphysema evident on the left upper lid (Figure 1b). The surgical emphysema and SCH gradually resolved and a month later, his

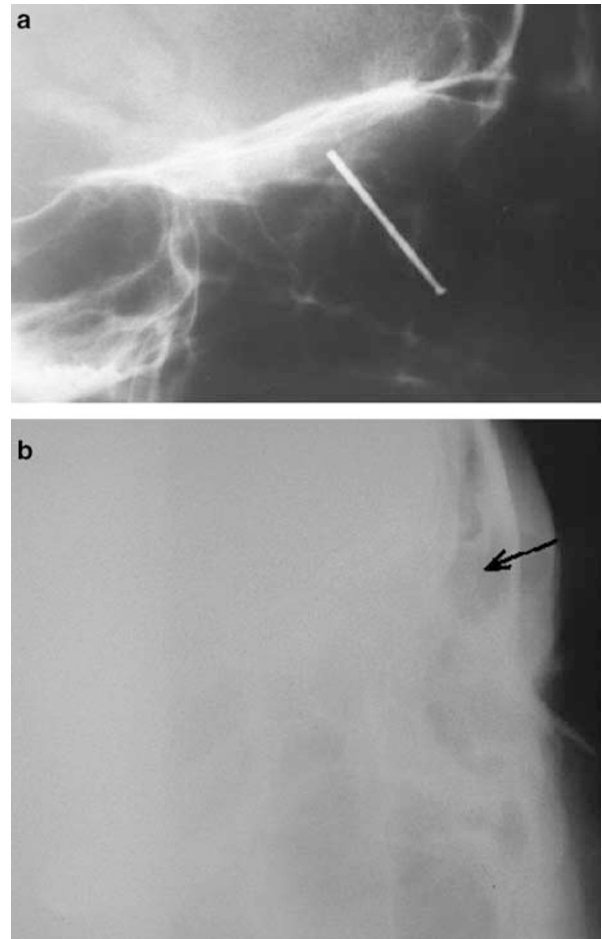


Figure 1 (a and b) Lateral orbital radiograph showing the nail in close proximity to the superior orbital roof (a) and surgical emphysema in the upper lid (b; arrow).



Figure 2 Fundus photograph showing a retinal defect inferotemporal to the disc with surrounding subretinal haemorrhage and retinal folds.

best-corrected acuity was 10/200 and a retinal defect was evident with surrounding subretinal haemorrhage and retinal folds due to retinal incarceration (Figure 2).

Comment

Migration of silicone oil into the orbit has been previously reported resulting in blindness due to the blockage of Ahmed valve and rubeosis.³ Gas is less likely to escape compared with silicone oil in these circumstances due to its larger surface tension. However, once the defect is breached by the gas bubble, its surface tension forces are reduced resulting in gas escaping to the orbit. It is thus important to avoid raising the intraocular pressure postoperatively to limit gas escape.

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Sir,
Recurrent hypopyon due to methicillin-resistant *Staphylococcus aureus* after cataract surgery

Methicillin-resistant *Staphylococcus aureus* (MRSA) ophthalmic infections are increasing as MRSA becomes more prevalent in the community.¹

Case report

A 79-year-old man had uncomplicated left eye phacoemulsification and lens implant on 12 June 2007. He presented 6 days postoperatively with left hypopyon and visual acuity (VA) of 6/24. He received subconjunctival gentamicin–betamethasone–mydracaine and oral ciprofloxacin. His vision dropped to hand movements (HM) before intravitreal antibiotic (vancomycin + amikacin) injection on 25 June. The vitreous specimen did not show pus cells and no organisms could be grown on culture. However, the eye rapidly improved and the VA was 6/12 by 2 July. A week later, the hypopyon recurred but inflammation resolved after another subconjunctival injection. Unfortunately, the hypopyon recurred for a third time on 30 July prompting a referral to our unit.

On 31 July, we found a 2 mm hypopyon, white deposits on the posterior capsule, vitreous cells and HM vision. The IOL and capsule were removed surgically

and intravitreal ciprofloxacin and teicoplanin were injected. Culture of the capsular bag showed MRSA sensitive to teicoplanin but resistant to ciprofloxacin and gentamicin. Screening found MRSA in his nose and groins.

His corrected VA was 6/9, there were no further recurrences, and he is awaiting secondary IOL implantation.

Comment

There have been previous reports of endophthalmitis caused by MRSA but not of low-grade endophthalmitis with organisms confined to the capsular bag.²

The department of health in England estimates that 30% of the population are colonised by *S. aureus* and in 3%, this is MRSA.³

Kato in 1998 found MRSA in 8 (1.3%) of 628 patients from preoperative conjunctival swabs.⁴

MRSA usually causes mild disease such as blepharoconjunctivitis² but sight-threatening disease can occur including endophthalmitis, blebitis, and corneal ulcers.¹ Patients often have ocular surface disease, atopy, or a debilitating illness.⁵ Our patient had been previously hospitalised for major bowel surgery.

Ophthalmologists need a higher index of suspicion particularly in 'at risk' individuals such as hospitalised elderly patients. Clinicians may need to re-evaluate antibiotic regimens in endemic areas, keeping in mind that MRSA remains susceptible to vancomycin and chloramphenicol but is often resistant to ciprofloxacin.^{2,5}

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