

**Figure 2** Gonioscopy of the nasal angle reveals peripheral anterior scarring with dimpling of the iris but no cleft.



**Figure 3** Ultrasound biomicroscopy of the bleb shows the posterior communicating fistula (arrow).

dysmorphism with spontaneous bleb formation.<sup>1,2,3</sup> Inadvertent blebs at the surgical site of scleral fixated intraocular lenses have also been reported.<sup>4</sup>

We report an unusual case where spontaneous bleb formation occurred many years after the initial injury. Gonioscopy did not reveal a communication between the bleb and the angle. Rather a posterior channel of communication was apparent on UBM between the bleb and ciliary body. The appearance of blebs on UBM and the association with function have been reported.<sup>5</sup> Filtering blebs do pose an increased risk of infection especially if they occur inferiorly or nasally.<sup>6</sup> Intervention is not warranted in the absence of aqueous leak, hypotony, worsening of vision or infections. Ultrasound

biomicroscopic localization of the fistula is helpful in differentiating a filtering bleb from a possible conjunctival traumatic cyst. It is also useful for surgical planning should future repair become necessary.

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Sir,  
**Learning phacoemulsification with triamcinolone acetamide**

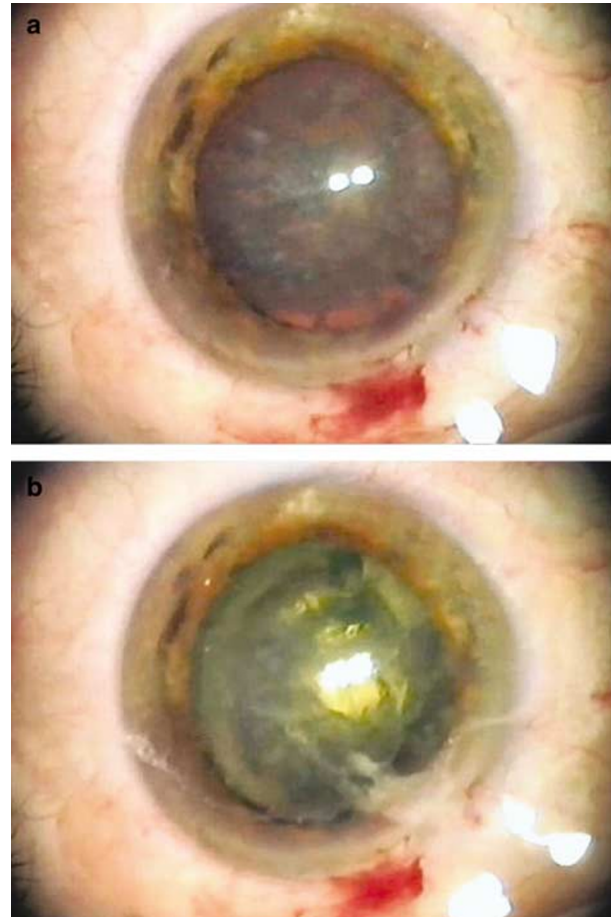
Learning phacoemulsification cataract surgery can prove a difficult step for trainees, despite the advances in technology, which have led to its increased efficacy and safety. Aspiring ophthalmic surgeons should familiarise themselves with phacoemulsification in a wet laboratory before operating on patients, and it is now mandatory that UK ophthalmic trainees attend a basic surgery

course before 'hands on' experience in the operating theatre.<sup>1,2</sup> However, the prosthetic and animal eyes used for training purposes are not the same as human eyes, and at some stage the trainee will have to operate for the first time on a 'live' patient. One of the skills to master when learning phacoemulsification is how to gauge the groove depth while sculpting. It needs to be sufficiently deep to allow easy cracking of the nucleus, yet not so deep as to damage the posterior capsule. Sculpting is particularly difficult in patients with a poor red reflex.<sup>3</sup>

Enhanced lens visualisation can assist junior surgeons when learning phacoemulsification. To the best of our knowledge, there are no published reports of lens enhancing dyes being used in living human eye operations, although Werner *et al*<sup>4</sup> described ways of enhancing visualisation when learning phacoemulsification on post-mortem human eyes in the laboratory. However, not all trainees have access to post-mortem human eyes, and differences still exist as compared to operating on real patients. We describe the first use of triamcinolone acetonide (Kenalog<sup>®</sup>) to enhance lens visualisation during phacoemulsification. Triamcinolone acetonide is safe for intracameral use, and has been used both to treat vitreoretinal diseases and to assist surgeons performing vitrectomy.<sup>5-7</sup>

### Case report

Three eyes of three patients with visually debilitating cataract underwent triamcinolone acetonide-assisted phacoemulsification with foldable intraocular lens implant. Two patients were women, aged 78 and 71 years (visual acuity 6/24 and 6/12, respectively) and one was a man, aged 75 years (visual acuity 6/12). All had moderate to marked nuclear lens opacity. One had additional cortical lens opacities. Informed consent was obtained. Following cortical cleaving hydrodissection with 2 ml of balanced salt solution (BSS<sup>®</sup>), 0.2 ml of triamcinolone acetonide (20 mg/ml) was injected under the anterior capsule via a blunt-tipped hydrodissection cannula. This was in the same capsule-cortex plane as the BSS hydrodissection. The injection of triamcinolone acetonide as an opaque white solution produced a brilliant golden layer, appearing just in front of the posterior capsule when viewed through the operating microscope. Figure 1 demonstrates the appearance of the crystalline lens before and after triamcinolone acetonide injection. The golden layer formed by the triamcinolone acetonide allowed immediate appreciation of both the thickness of the lens and the position of the phaco tip in relation to the posterior capsule while sculpting. The Kenalog rapidly dissipated once the lens was rotated and no triamcinolone acetonide particles were evident within the eye after the phacoemulsification



**Figure 1** Appearance of the crystalline lens after hydrodissection (a) and the improved lens delineation after triamcinolone acetonide injection (b).

was completed. All three operations were completed successfully with no complications, and each operated eye achieved a visual acuity of 6/9 unaided or better when examined 2 weeks postoperatively.

### Comment

Some surgical techniques are best mastered by operating on live patients. Capsulorrhexis is one such technique, and the anterior capsule enhancement used by experienced surgeons in difficult cases can also be used by trainees during more straightforward cases.<sup>8,9</sup> We have shown that lens visualisation can also be safely enhanced during phacoemulsification, allowing easier assessment of the depth of the phaco 'grooves' and thickness of the peripheral lens while sculpting. It is reported that up to 36% of posterior capsule tears occur during this stage of cataract surgery,<sup>10</sup> and we suggest that the improved lens visualisation achieved with triamcinolone acetonide could help to reduce complications when learning phacoemulsification.

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Sir,

### A technique for removal of a live nematode from the vitreous

Thelaziasis is a nematode infection of ocular tissue that is caused by *Thelazia callipaeda*, called oriental eyeworm,

which is found in China, India, Thailand, Korea, and Japan. This parasite has been identified in the conjunctival sac, lacrimal gland, and canal of animals such as dogs, cats, cows, badgers, rabbits, foxes, and monkeys in Asia. Thelaziasis in human is an opportunistic infection.<sup>1</sup> At least 40 cases of ocular infection in humans have been described.<sup>2</sup> However, intravitreal migration of living worm is extremely rare. In case of live worm in vitreous, removal without causing any damage to live worm is difficult. Damage to live worm in vitreous may liberate internal contents of worm, which can result in serious inflammation.

We describe a technique using minimum posterior hyaloidotomy with passive aspiration of live worm for safely removing it as a whole.

### Case report

A 50-year-old man was injured in his left eye by shattered glass from broken lens of spectacles. Clinical examination of the eye revealed a 6 mm-sized, peripherally located, single, full thickness corneal laceration with iris incarceration and traumatic lens opacity. Corneal wound was repaired with interrupted 10-0 nylon sutures, and pars plana lensectomy with partial anterior vitrectomy was done. Two days after operation, a 15 mm sized live thread-like worm was found inside the vitreous cavity. Trans pars plana vitrectomy for removal of the worm was performed. Initially, minimum posterior hyaloid far from the live worm was excised with the vitreous cutter from the mid-vitreous in order to make a small opening in the posterior hyaloid surface. A nineteen-gauge cut-down needle was introduced into the vitreous cavity and placed at the opening of posterior hyaloid surface. By gradual elevation of infusion bottle, the 15 mm-long live worm was captured and removed as a whole in a 50 cm<sup>3</sup> syringe connected with the 19 gauge cut-down needle (Figures 1 and 2). We did not apply active suction pressure to maintain ocular stability.

After removing the live worm in the vitreous, remained vitreous was removed with vitreous cutter.

### Comment

*T. callipaeda* is a member of the phylum Nematoda, order Spirurida, suborder Spirurata, superfamily Spiruroidea. Adult worms look like creamy white threads; they are 4.5–17 mm long and 0.25–0.85 mm in diameter. *T. callipaeda* is an unsegmented invertebrate with distinct