

normal eyes and highly myopic eyes with third-generation optical coherence tomography. *Eye* 2008; **22**: 551–555.

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Sir,
Serious spinal sequelae following the use of eye drops

The recently updated NICE glaucoma guidelines¹ highlight the need for explaining to patients the technique of how to instil an eye drop. In an attempt to elevate the cornea away from the lower lid to reduce the chance of the dropper touching the cornea, we often ask our patients to look up. This movement may hyperextend their neck and atlanto-occipital joints.

We report a case of significant neck damage following the use of eye drops. A 67-year-old gentleman was diagnosed with glaucoma and commenced on Latanoprost (Xalatan, Pfizer) eye drops. Five days later he experienced numbness and paraesthesia in his hands, which continued for 6 months. A neurological examination showed brisk upper limb reflexes and an extensor plantar response consistent with an upper motor neurone lesion. Subsequent spinal MRI (Figure 1) showed severe degenerative change between C3/4 and C6/7 with compression of the cord (cervical spondylosis with myelopathy).



Figure 1 MRI spine showing severe degenerative change between C3/4 and C6/7 with compression of the cord (cervical spondylosis with myelopathy).

with myelopathy). The patient was advised to avoid neck hyperextension when instilling his drops. On subsequent neurosurgical review 2 months later, his symptoms had settled and no surgery was required.

Nucci *et al*² have previously reported a case of atlanto-axial dislocation caused by administration of eye drops in a child with Down's syndrome. This case report suggests that we should also perhaps explain to patients that there is no need to forcefully hyperextend the neck, as drops can effectively be instilled without such neck movement. Gentle lower lid retraction can help avoid the bottle contacting the eye, as this can result in contamination of the bottle contents.

Rather than asking our patients to 'look up', we should consider asking, 'keep your head still and with your eyes only look up', perhaps with a helper's gentle hand support on the back of their head to avoid neck hyperextension. Patients can also try the semi-recumbent position to aid drop application, or, alternatively, their carers can instil the drop.

Patients with musculoskeletal problems do require eye healthcare professionals to assess their needs in a holistic manner in order to aid concordance with long-term topical therapy, and to reduce the risk of serious spinal sequelae.

Conflict of interest

The authors declare no conflict of interest.

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Sir,
A novel technique for removal of inadvertent subretinal perfluorocarbon liquid after complex retinal detachment surgery

Perfluorocarbon liquid (PFCL) is commonly used in the surgical management of complicated retinal

detachments. Intraoperative subretinal PFCL migration may occur^{1,2} and its incidence has been reported to range from 0.9%³ to 11.1%.⁴ Several laboratory studies have shown that PFCL may exert toxic effects on the retina,⁵ while clinical reports have shown that retained subretinal PFCL can cause retinal pigment epithelial atrophy,⁶ retinal hole formation,¹ and scotomata.^{2,7} Consequently, removal of subretinal PFCL is advisable. However, direct aspiration of the retained subretinal PFCL can lead to several complications, including subretinal haemorrhage, pigment epithelium damage, subretinal proliferation, and fibrosis and nerve fibre layer damage.² Recently, a technique of successful PFCL displacement was described that included an iatrogenic transient retinal detachment followed by postoperative head positioning.⁸

We present a case of successful removal of subretinal PFCL solely by post-operative head positioning, which may—in selected cases—be a safe and effective alternative to direct transretinal aspiration.

Case report

A 69-year-old woman was admitted to our hospital with sudden visual loss in her left eye. Indirect ophthalmoscopy revealed a total macula-off retinal detachment owing to five retinal horseshoe tears at the 12-, 11-, 10-, 8-, and 7-o'clock positions and three retinal holes at the 7.30-, 7.45-, and 9-o'clock positions (Figure 1).

Visual acuity (VA) at presentation was limited to hand movement.

A vitrectomy using PFCL and silicone oil tamponade was performed the same day under local anaesthesia. The use of PFCL–silicone oil was dictated by the fact that the patient had to travel by aeroplane shortly after the operation. During an ill-timed and inadvertently too fast PFCL injection by the scrub nurse, the heavy liquid entered into the subretinal space, creating a macular hole with an approximate diameter of 200 µm that was

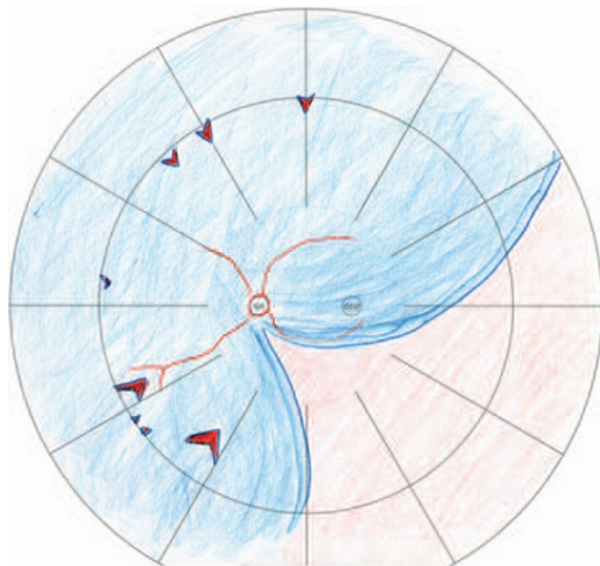


Figure 1 Schematic diagram of the retinal detachment in the left eye showing the position and approximate size of the five retinal horseshoe tears and three atrophic retinal holes.

generated by the PFCL's very fast fluid jet. By continuing properly directed PFCL injection into the vitreous cavity, the retina could nevertheless be attached to a large degree with passive egress of most of the subretinal fluid through the retinal breaks, and a direct PFCL–silicone oil exchange could be performed. Direct intraoperative aspiration of the subretinal PFCL was not attempted, as the PFCL was located in the extreme inferior periphery at the 6-o'clock position once the PFCL–silicone oil exchange was completed, and aspiration through the nearest retinal tear was deemed to be associated with too many risks of collateral damage.

At the first post-operative examination the next day, a few subretinal droplets of PFCL were visible at the 6 o'clock position, with a still slightly detached retina and a silicone oil bubble that filled about 80% of the vitreous cavity. The patient was subsequently placed on the right side overnight and then into a face down position (90° turn). The purpose of this sequential head positioning was to allow the subretinal PFCL to settle on the nasal periphery of the eye and then use a face down positioning to force the subretinal fluid out of the breaks. This eventually resulted in the successful displacement of the PFCL droplets through the retinal breaks in the peripheral nasal retina into the posterior chamber. No clinical signs of remaining subretinal PFCL were present 3 days after surgery and the macular hole created by the PFCL fluid jet was shown to have closed using optical coherence tomography examination. Intraocular silicone oil and the remaining PFCL bubbles in the posterior chamber were removed after 2 months and cataract surgery was performed 12 months later. At the last follow-up 19 months later, VA was 0.8 (decimal equivalent) and the retina remained attached.

Comment

This case illustrates an easy non-invasive technique comprising postoperative head positioning, which was sufficient to successfully displace retained subretinal PFCL droplets into the posterior chamber through the retinal breaks of the peripheral retina. The presented technique appears advantageous compared with the direct aspiration of subretinal PFCL, which has been linked to various complications.² However, it is probable that this technique is applicable only if there is residual subretinal fluid present around the PFCL, which will allow the displacement of these bubbles towards the retinal breaks.

Conflict of interest

The authors declare no conflict of interest.

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Sir,
Realignment of a previously dislocated intraocular lens with a secondary intraocular lens: a rare cause of severe myopia

An 88-year-old man, with a history of a retained right dislocated intraocular lens and secondary lens insertion, presented to our department with reduced vision. He had undergone uncomplicated phacoemulsification with posterior chamber lens insertion in 1996. Two years later a YAG capsulotomy was performed. In 2005, the vision in his right eye had suddenly decreased to 1/60 on Snellen visual acuity testing. Further examination revealed a complete dislocation of his intraocular lens into the vitreous inferiorly. There was no preceding trauma and he did not have pseudoexfoliation. The patient had a secondary sulcus intraocular lens inserted and the dislocated lens was not removed. He was happy with the improvement in his vision.

Three years later the patient re-presented with a 2-week history of reduced vision in his right eye. His right visual acuity was now counting fingers. The sulcus-fixated lens was well positioned, with no obvious evidence of the previously dislocated intraocular lens. Retinoscopy showed a high myopic refraction of approximately -20 D and visual acuity improved to 6/12 with correction. Autorefractometry confirmed high myopia in his right eye. On further slit lamp examination it was difficult to identify a double lens. However, YAG lens pitting was visible behind the main lens implant. The pitting was not seen to be mobile with eye movement, suggesting that the original lens may have realigned and was now stable. Ultrasound imaging was equivocal and showed a lens in the vitreous adjacent to the sulcus lens (see Figure 1). The authors cannot fully

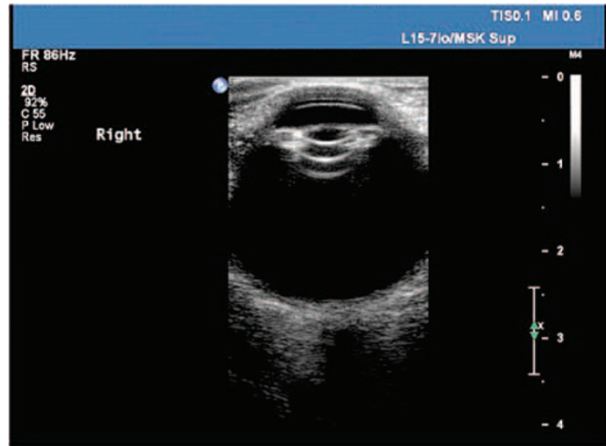


Figure 1 Ultrasound imaging showing a lens in the inferior vitreous.

account as to how the lens relocated and subsequently seemed stable. It is presumed that it lodged on or in the anterior vitreous. Re-dislocation of intraocular lenses and de-centration have been reported,¹ but to the authors' knowledge the realignment of a previously dislocated intraocular lens with a secondary intraocular lens resulting in severe myopia has not been described before.

At the time of investigation the patient was undergoing treatment for other co-morbidities, and a general anaesthetic for further surgery was contraindicated. He unfortunately died due to these co-morbidities, and further help for his unusual symptoms could not be offered.

Conflict of interest

The authors declare no conflict of interest.

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Sir,
A case of diffuse fluorescein leakage not associated with a CNV in Pseudoxanthoma elasticum

Pseudoxanthoma elasticum (PXE) is an inherited multisystem disorder that is associated with accumulation of mineralised and fragmented elastic