more likely to develop retinal detachments following trauma. They should therefore be advised against participation in contact sports,[10] and in the light of this report they should also be aware of the potential risks of other vigorous activities such as high-speed fairground rides.

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Sir,

Management of Intraretinal Metallic Foreign Bodies Without Retinopexy

Foreign bodies embedded in the retina and choroid comprise a distinct subtype of retained intraocular foreign body (IOFB). The management of these foreign bodies necessitates the use of vitrectomy surgical instruments and techniques in conjunction with IOFB forceps or an intraocular rare earth magnet.[1-3] Retinopexy using laser photocoagulation or cryo around the retinal break caused by the foreign body is often assumed to be necessary.[1,2]

Retinopexy can be difficult or dangerous because of surrounding retinal, subretinal or choroidal haemorrhage, or the proximity of the IOFB to the optic disc and macula. I describe here the management of five retained metallic IOFBs which were embedded in the retina and choroid but without retinal detachment. These cases were managed by vitrectomy techniques without retinopexy around the retinal break caused by the foreign body.

Case Reports

The 5 patients were all male, ranging in age from 10 to 37 years, and all the IOFBs were caused by the use of a hammer on a chisel or metal. All the patients had corneal entrance sites with traumatic cataract and the corneal lacerations were repaired prior to referral. The time between occurrence of the trauma and surgery ranged from 5 to 12 days.

Fig. 1. *Computed axial tomogram showing an intraocular foreign body embedded in the posterior eye wall.*

All eyes had standard radiographs of the orbit to confirm the presence of the foreign body. Computed tomographic scans demonstrated IOFBs embedded in the posterior eye wall (Fig. 1). B-scan ultrasonography demonstrated flat retina in all 5 cases.

A pars plana lensectomy and vitrectomy were performed. The preretinal blood was evacuated using a Charles flute needle and the embedded foreign bodies were seen surrounded by a grey-white capsule. The IOFBs were located posteriorly outside the arcade vessels in 3 eyes, inside the arcade vessel in 1 eye and along the upper temporal artery one disc diameter from the optic disc in 1

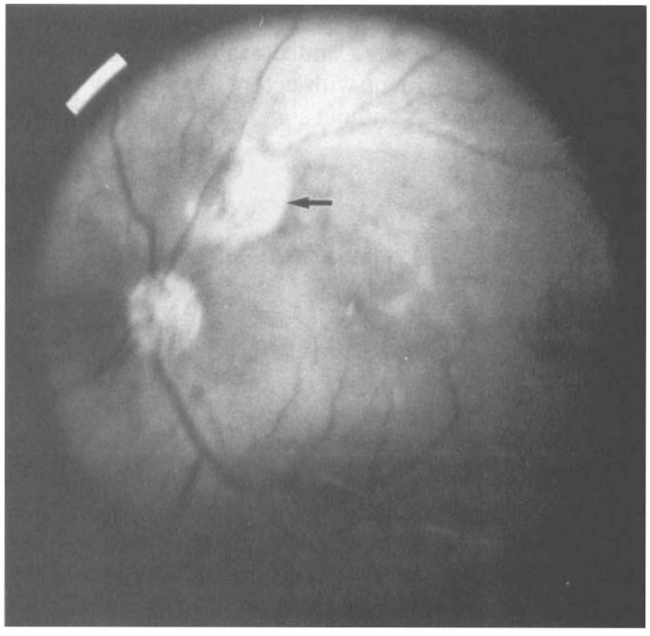

Fig. 2. *Chorioretinal scar at the foreign body impaction site on the upper temporal artery (arrow).*

eye. The capsule surrounding the IOFB was opened and the IOFB mobilised and dislodged with a membrane pick. The pars plana incision was enlarged to accommodate the foreign body that was removed in all cases with intraocular forceps, under direct observation. No retinopexy was performed in any of the cases. Total fluid/air exchange was performed in 3 cases. The whole procedure was performed under indirect ophthalmoscopic monitoring using a +20 dioptres lens (John Scott, Cambridge, UK, personal communication). The follow-up periods ranged from 2 to 10 months. In all cases the retina remained attached and a chorioretinal scar was present at the retinal break caused by the foreign body (Fig. 2).

Discussion

Five cases of metallic foreign bodies embedded in the retina and choroid but without retinal detachment were managed successfully by pars plana vitrectomy and foreign body removal without intraoperative or post-operative retinopexy. A spontaneous chorioretinal adhesion subsequently developed around the retinal break induced by the foreign body and the retina remained attached at the end of the follow-up period. Ambler and Meyers[3] managed similar cases by pars plana vitrectomy and foreign body removal using an intraocular rare earth magnet without retinopexy. In all their cases, chorioretinal adhesion was present at the retinal break caused by the foreign body and the retina remained attached.

These data indicate that retinopexy around the retinal break induced by metallic foreign bodies embedded in the retina and choroid without retinal detachment is not necessary and should be avoided.

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Sir,

Ocular Injury Caused by a Retractable Dog Lead

Ocular injuries caused by elasticated cords with metal or plastic hooks are well described.[1–4] We describe the first reported ocular injury caused by a retractable dog lead.

Case Report

A 45-year-old man was walking his Border Collie which was being restrained by a retractable dog lead (Fig. 1).

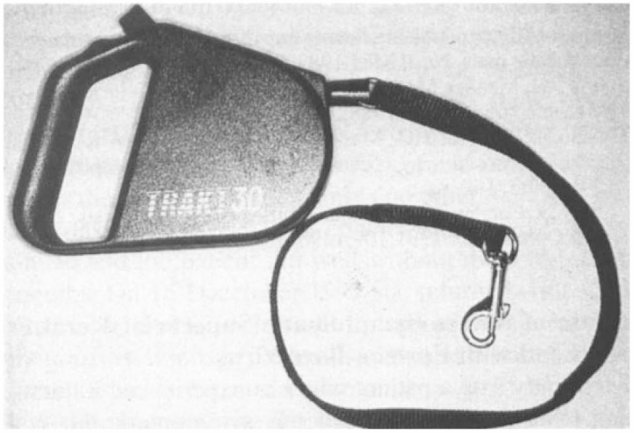

Fig. 1. *The retractable dog lead with spring-loaded metal gate clip.*

The dog's attention was attracted by another dog and she bolted down an embankment in pursuit. The lead uncoupled from the dog collar due to failure of its spring gate mechanism, causing the lead to recoil and deliver a serious blunt injury to the left eye.

On examination the patient's visual acuity was counting fingers. The crystalline lens had subluxated blocking his pupil and he had sustained a vitreous haemorrhage. The lens was immediately removed and an anterior vitrectomy carried out. Two weeks later the patient was found to have developed an inferonasal retinal detachment. This was repaired with vitrectomy and tyre. At a later stage he underwent sutured posterior lens implant, with repair of iris and botulinum toxin injection into the lateral rectus to correct exotropia that had developed due to his aphakia. Following this the patients now attains a visual acuity of 6/9 and was orthophoric.

Discussion

A variety of uses of elasticated cords have been cited as causing ocular injury, the most common being to secure luggage to car roof racks[1,2] but also to keep suitcases and backpacks closed and to secure tent posts.[4] We report the first ocular injury caused by a retractable dog lead. We challenge the suggestion that the spring-loaded metal gate clip[2–4] prevents accidental release of metal and plastic hooks, as it was the spring gate mechanism on this occasion which proved to be defective and led to the uncoupling of the lead. The recommendation of Litoff *et al.*[4] that polycarbonate safety spectacles should be worn when securing elastic straps is impracticable when walking a dog.

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