and/or vasoconstrictive agent to prevent haemorrhage as well as infiltrate the lacrimal fossa with local anaesthetic and a vasoconstrictor. These agents can have significant systemic effects on frail, elderly patients, with exacerbation of systemic hypertension, tachycardia, dysrythmia, and a risk of myocardial toxicity due to their sympathomimetic action.[6,7] DCT can be performed with standard local infiltration of the medial canthal area with lidocaine and adrenaline alone without the need for nasal packing.

Other authors have advocated the use of DCT in the management of chronic dacryocystitis when there is a dry eye.[3,4] However, in this case the patient initially presented with epiphora and subsequently went on to develop acute dacryocystitis, then chronic dacryocystitis with fistula formation. The surgical choice of DCT over DCR was guided principally by the ill health of the patient. This patient has performed well, with no recurrence of dacryocystitis, fistula, or epiphora. We therefore advocate that surgeons consider DCT in some frail, elderly patients with chronic dacryocystitis as a safe alternative to DCR.

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Sir,

Chorioretinal arterial and venous anastomoses as a result of blunt trauma

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Venous Chorioretinal anastomosis has been induced using a variety of techniques in the treatment of retinal vein occlusions. This process can also occur in a number of infective, inflammatory, or traumatic processes. We describe the formation and angiographic appearance of Chorioretinal venous and arterial anastomoses following a nonpenetrating eye injury.

Case report

A 40-year-old pseudophakic white male patient presented following a blunt injury to the right eye, reportedly caused by a punch. This man had had bilateral cataract extractions using a phacoemulsification technique with intraocular lens insertion 2 years previously for idiopathic presenile cataract.

On initial examination, visual acuity was 6/18 right eye and 6/5 left eye. On the right side, a partial dislocation of his posterior chamber intraocular lens into the anterior chamber was present. The intraocular pressure was 13 mmHg on both sides by applanation tonometry. On dilated examination, a vitreous haemorrhage and an inferior Chorioretinal rupture could be seen.

The Chorioretinal rupture measured approximately five disc diameters in length and originated one and a half disc diameters inferior to the optic nerve head. The rupture passed inferotemporally, following a curvilinear course that transected the inferior temporal retinal arteriole and vein. The left eye examination was unremarkable.

Following initial treatment with topical steroid and antibiotic drops, visual acuity improved to 6/9 within 8 weeks of the injury. Anterior uveitis with secondary glaucoma continued to intermittently cause symptoms.

On review at 5 months following the injury, it was noted that although the inferior temporal retinal arteriole proximal to the chorioretinal rupture was stenosed and did not appear to have significant blood flow the arteriole proximal to the rupture was of normal calibre and appearance (Figure 1). The inferotemporal retina

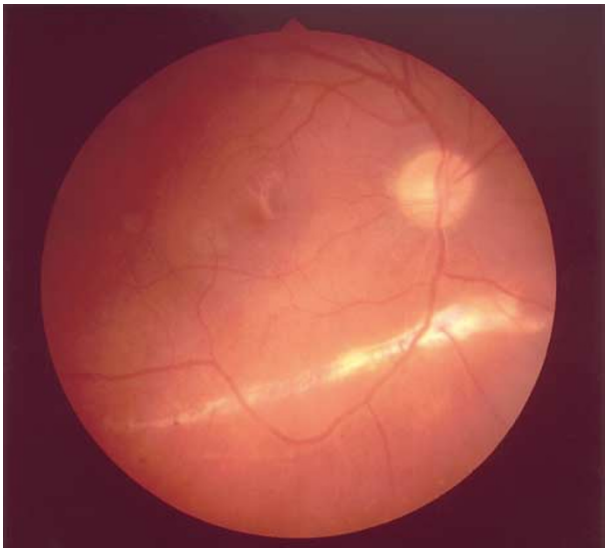

Figure 1 Colour fundus photograph of the right eye 5 months following closed globe trauma resulting in chorioretinal rupture.

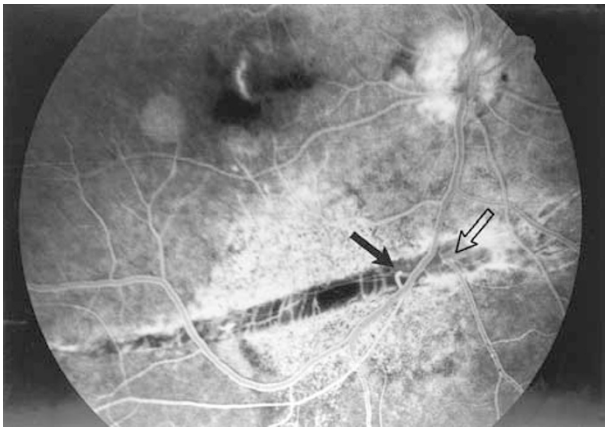

Figure 2 Fundus fluorescein angiogram showing the inferior branch retinal artery filling from the choroidal circulation (black arrow) and the inferior branch retinal vein emptying into the choroidal circulation (clear arrow).

peripheral to the chorioretinal rupture appeared healthy with no evidence of pallor, oedema, or exudates.

A fluorescein angiogram was carried out with digital real-time image capture using a Heidelberg Engineering scanning laser ophthalmoscope. The inferior temporal retinal arteriole distal to the chorioretinal rupture filled immediately prior to the central retinal artery, that is, from the choroidal circulation (Figure 2). A short, curved section of arteriole was visible ascending from the inferior border of the chorioretinal rupture. No flow was seen through the proximal portion of the inferior temporal arteriole.

The venous circulation was also abnormal on angiography. A branch of the inferior temporal vein drained up to, but not beyond, the site of the chorioretinal rupture. The branch vein appeared to be of normal calibre with flow comparable to unaffected vessels in other segments of the fundus. As with the branch arteriole, the vessel appeared to curve deep to the retina to anastomose with the choroidal circulation. No connection was present between the proximal end of this vein and the main inferior temporal retinal vein. There was no evidence of choroidal neovascular membrane formation, retinal oedema, or exudate.

Comment

Acquired chorioretinal anastomoses have been described in disciform age-related macular degeneration, sickle cell anaemia, laser photocoagulation, severe hypertension, toxoplasmosis, toxocariasis, and trauma.[1–5] The authors are only aware of one described case where this change has occurred following closed globe trauma.[6] Anastomoses have been described affecting arterial only, venous only, or both types of vessels. In all these events, the integrity of Bruchs membrane and the retinal pigment epithelium has been lost, allowing the approximation of retinal and choroidal circulations. The pressure gradients within the eye are, from the highest to the lowest, choroidal arterial, retinal arterial, retinal venous to choroidal venous. Knowing the direction of flow from fluorescein angiography, the anastomosis described here must therefore be between choroidal artery and retinal artery, and between retinal vein and choroidal vein. This connection between unrelated large calibre retinal vessels and the choroidal circulation is postulated to be a result of their approximation by granulation tissue during the healing process.

In some cases, complications, predominately neovascular membranes, have arisen as a result of the formation of these chorioretinal anastomoses. Communications between larger calibre vessels appear to have a clinically more benign course. In this case and the small number of other comparable reported incidences, there has been no evidence of clinically significant neovascular proliferation, exudation, or oedema.[6,7] It is in an effort to repeat this benign anastomotic process involving the venous drainage of the retina that both argon and YAG lasers and more recently surgery have been utilised for treatment of retinal vein occlusion.[8,9]

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Sir,

Use of blue-on-yellow perimetry for detection of sectoranopia

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Each sector of the lateral geniculate body corresponds with a sector of visual field.[1] A lesion of the lateral geniculate body can produce a wedge-shaped visual field defect, which is called sectoranopia. The territory of the lateral choroidal artery covers a horizontal area. Visual field defects are commonly demonstrated by conventional Goldmann perimetry and automated perimetry.[2,3] We examined a woman with homonymous horizontal sectoranopia with a new method, blue-on-yellow perimetry. The lesion she had was thought to be in the lateral geniculate body.

Case report

A 49-year-old woman experienced sudden left haemianopia. Magnetic resonance imaging (MRI) demonstrated no lesion on that day. After 1 month, the MRI heavily T2 weighted image (black and white

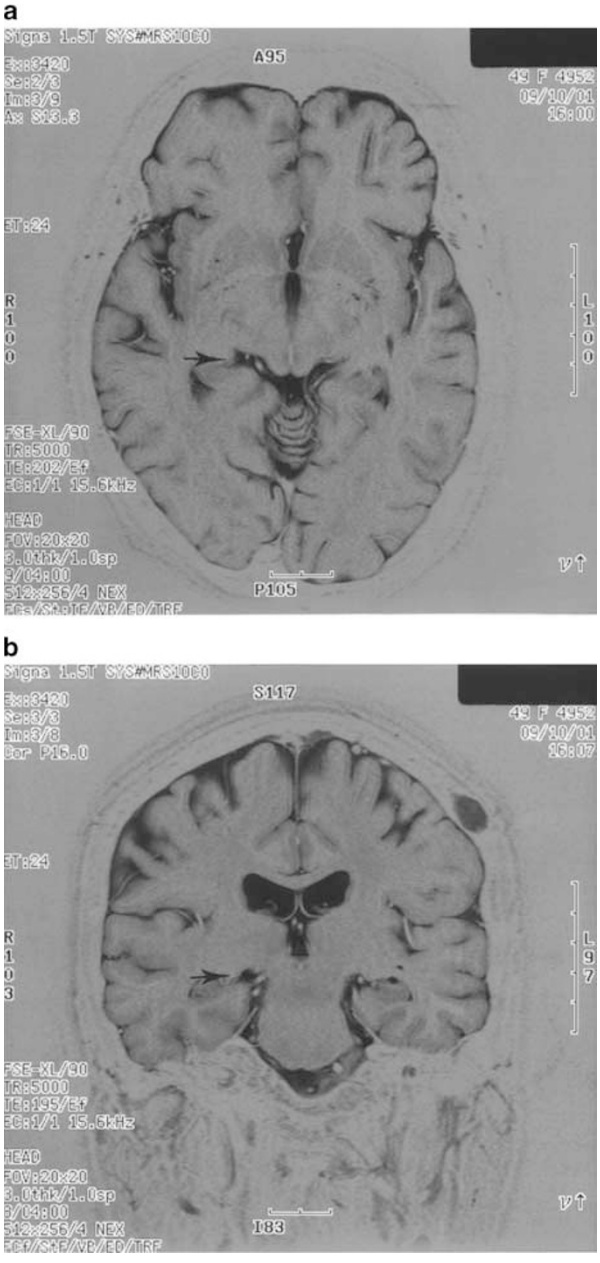

Figure 1 MRI heavily T2 weighted image (reverse image) demonstrates low intensity (arrowhead) around the right lateral geniculate body: (a) transverse image, (b) coronal image.