LETTERS TO THE EDITOR

Use of a modified back-flush needle in diabetic vitrectomies

SrR,—A safe method for removal of blood from the vitreous cavity is a prerequisite to performing successful surgery particularly in eyes with advanced proliferative diabetic retinopathy. Such eyes often have dense retrohyaloid haemorrhage and tractional retinal detachments. The vitreous haemorrhage often settles in a viscous layer on atrophic detached retina and thus makes ‘vacuuming’ with a conventional Charles flute needle potentially hazardous.

Zivovjnovic described the use of the modified back-flush needle2 which incorporates a silicone rubber bulb with an aperture for control of suction, and which also permits reflux of intraocular fluid. Although this modification was designed to free any incarcerated tissue such as retina we describe a technique which facilitates complete removal of blood from the vitreous cavity and preretinal space with safety.

Any integral haemorrhage present is first removed by conventional three-port vitrectomy. An opening can then be produced into the posterior hyaloid space through which the back-flush needle can be positioned under direct visualisation; fluid haemorrhage is then evacuated using the flute modality of the needle (Fig 1a). In addition to aid complete clearance of settled blood, particularly prior to epiretinal membrane dissection or to endophotoscleroses, the rubber bulb can be forcefully depressed with the forefinger over the aperture, creating a jet of fluid directed at the layered blood on the retinal surface (Fig 1b). The current of the fluid blows the settled blood off the surface of the detached retina. The blood immediately disperses and circulates mostly in the anterior part of the vitreous cavity, and can then be easily evacuated from there using the same flute needle.

Peyman described a similar technique in which the exit aperture of the flute needle is tapped with the index finger causing the pressure within the cannula to be increased expelling the needle’s contents inside the eye.2 Though no complications were described with this procedure the number of cases was small and we believe that the technique we describe is more controlled and hence safer.

We have now used the back-flush needle technique for more than 2 years on more than 150 cases with tractional retinal detachments due to proliferative diabetic retinopathy. So far we have not encountered any complications, in particular no iatrogenic retinal breaks have been created as a result of this procedure.

2 Peyman GA. (Letter.) Retina 1988; 8: 221.

Scleral melting and conjunctival rhinosporidiosis

SrR,—I read with interest the case report by De Doncker et al.1 A retrospective study (unpublished) of 28 cases of ocular rhinosporidiosis seen at the Government Ophthalmic Hospital, Madras, between 1978 and 1986 included a 32-year-old male who presented with a slowly progressive bluish swelling on the temporal sclera of the left eye. There was no past history of significant ocular disease or injury.

Clinical examination revealed scleral ecstasia of about 5 mm in diameter temporal to the limbus. Overlying this area there was a vascularised conjunctival polyp of approximately 3 mm in diameter at the base and clinically diagnosed as rhinosporidiosis because of characteristic pale spots scattered on the surface. This patient was treated by excising the conjunctival lesion (histopathological examination confirmed the clinical diagnosis) and scleral grafting over the area of scleral weakness. The status of the disease process in the late post-operative period was not recorded as the patient was lost to follow-up—a common occurrence in Indian government hospitals.

To my knowledge there are 20 cases of scleral staphylomas associated with histologically proved conjunctival rhinosporidiosis2 other than the one described above and the two cited by De Doncker et al. One of the management options reported initially was excision of the conjunctival granuloma over the scleral lesion but we have found use of a conjunctival flap to strength the area of scleral thinning.3 This prevented an increase in the size of the staphyloma when the patient was reviewed at 6 months. More effective treatment was suggested by Kuriakose in 1972 (paper presented at the 29th All India Ophthalmic Society Conference) in the form of pushing the staphyloma inwards and suturing the healthy scleral edges together or using a corneal graft to cover the scleral defect. However by 1980, based on the experience of treating four and seven cases, a consensus had emerged as to the most successful management of scleral staphylomas caused by conjunctival rhinosporidiosis: excision of the overlying conjunctival granuloma, reduction in the size of the staphyloma by administering oral azacyclomide, performing anterior chamber paracentesis, and gentle pressure on the surface of the staphyloma followed by the use of a reinforcing donor scleral graft which extends beyond the margins of the scleral staphyloma. Finally the healthy conjunctival edges are sutured over the scleral graft. There was no case of recurrence on long term review of the operated patients.4

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Topical timolol and serum lipoproteins

SrR,—Although West and Longstaff failed to find any significant alterations in serum lipids

Fig 1a
An opening through the posterior hyaloid has been made. Evacuation of retrohyaloid haemorrhage using the flute needle modality (a), and dispersion of settled haemorrhage from the retinal surface using the back-flush modality (b).