

LETTERS TO THE EDITOR

Use of a modified back-flush needle in diabetic vitrectomies

SIR,—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.

Zivojnovic described the use of the modified back-flush needle¹ 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 endophotocoagulation, 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 vacuumed 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 traction 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.

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We thank Mr T Tarrant for kindly providing the figure.

- 1 Zivojnovic R, Vijfinkel GJ. A modified flute needle. *Am J Ophthalmol* 1983; 96: 548-9.
- 2 Peyman GA. (Letter.) *Retina* 1988; 8: 221.

Scleral melting and conjunctival rhinosporidiosis

SIR,—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 ectasia 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 rhinosporidiosis²⁻⁶ 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 staphyloma and the use of a conjunctival flap to strengthen 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 four⁴ and seven⁵ 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 acetazolamide, 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.⁶

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- 1 De Doncker RML, de Keizer RJW, Oosterhuis JA, Maes A. Scleral melting in a patient with conjunctival rhinosporidiosis. *Br J Ophthalmol* 1990; 74: 635-7.
- 2 Karunaratne WAE. *Rhinosporidiosis in man*. London: Athlone Press, University of London, 1964: 64.
- 3 Ramalingam TT, Rao PNS. Scleral staphyloma due to rhinosporidiosis. *J All India Ophthalmol Soc* 1969, 17: 59-60.
- 4 Suseela V, Subramanian KS. Ocular rhinosporidiosis. *Indian J Ophthalmol* 1976; 23: 1-4.
- 5 Sivayoham ISSR. Scleromalacia caused by mycosis. Proceedings of the Sixth Afro-Asian Congress of Ophthalmology, Madras, 1976: 673-6.
- 6 Kuriakose ET. Scleral transplantation in scleral staphylomas caused by occlusporidiosis. *Indian J Ophthalmol* 1980; 27: 227-8.

Topical timolol and serum lipoproteins

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

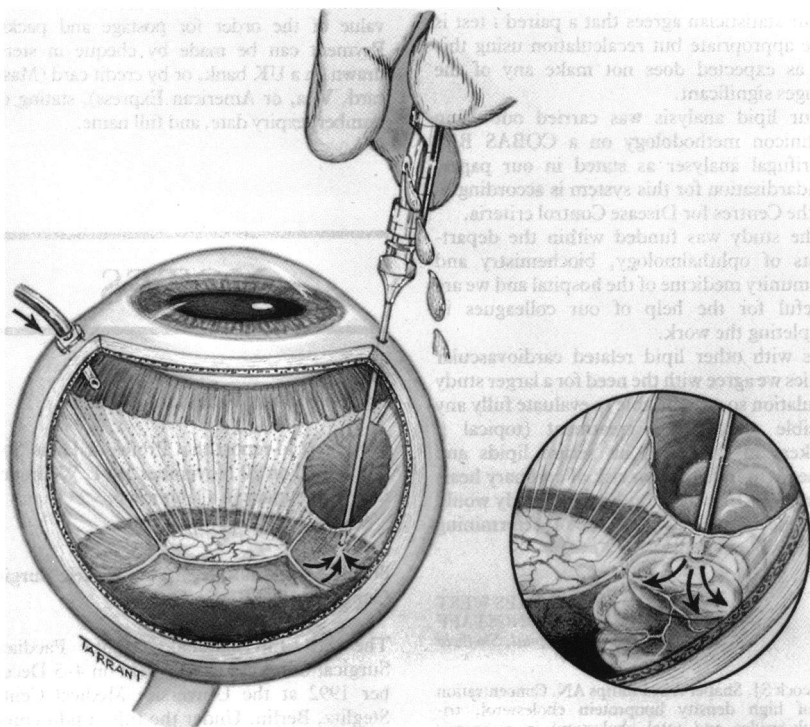


Fig 1a

Fig 1b

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).