1977a). Neither of these assertions, however, is based on definite evidence. The relevance, for example, of the observation (Hayreh, 1976, 1977b) that fluorescein can diffuse from the cisterna magna to the vitreous cavity via the subarachnoid space, optic nerve, and optic disc is unclear.

The prelaminar venular congestion mentioned by Mr Primrose was observed to be a *late* event during the development of experimental papilloedema (Hayreh and Hayreh, 1977b). Nevertheless, this in no way detracts from the possibility that an ischaemic mechanism may be operating in the *retrolaminar* ciliary artery territory (as postulated, though unsubstantiated, by Mr Primrose) and may be contributing to the axoplasmic transport block in papilloedema.

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Early postoperative sterile hypopyons

SIR, The article by Hunter (1978) mentions a high incidence of hypopyons following lens extraction and describes them as being sterile. The physiological reasons presented by the author explaining these hypopyons may be correct, but the possibility of infection is not mentioned.

The minimum infective dose even for virulent staphylococci is much greater than hitherto thought (Elek, 1959). That the actual number of bacteria implanted in an eye is an important factor was proved by Maylath and Leopold (1955), who injected into the cornea, anterior chamber, and vitreous of rabbits' eyes varying doses of different species of pathogenic bacteria. Their work was confirmed by Crompton *et al.* (1962) who assessed the virulence of small doses of several species injected intracamerally. In untreated rabbits, depending on the dose and species of bacteria used, a graded response is produced from no reaction to a transient hypopyon or panophthalmitis with destruction of the eye.

Maylath and Leopold (1955) found that positive cultures of intraocular infections were difficult to obtain in rabbits, and this was confirmed (Crompton *et al.*, 1962). All ophthalmologists must be aware of the difficulty in culturing organisms from the anterior chamber of patients with panophthalmitis. Hunter (1978) assumes that the hypopyons he described are sterile. A likely cause in some of these patients would be small doses of virulent bacteria or larger doses of nonpathogens. It would be unfortunate if this interesting paper encouraged complacency in aseptic technique.

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SIR, While I appreciate Mr Crompton's concern over the maintenance of the highest standards of aseptic technique, I do not consider that my article (Hunter, 1978) endangers these standards.

In the introduction to this article it is stated that the initial reaction was to investigate and treat these hypopyons as being of infective origin, and, additionally, the operating theatre was closed on the first two occasions. However, no organism was cultured nor was any source of potential contamination found, this despite a total of 5 hypopyons in the first and 3 in the second affected lists (Theodore (1965) considered that *Pseudomonas aeruginosa* was the infectious agent in all known instances of multiple infection). Other major centres in England had also noted an apparent increase in early postoperative hypopyons, but none considered them by investigation results, presentation, or behaviour to be infective in type.

Forster *et al.* (1978) obtained positive cultures from 50% of vitreous and to a lesser extent anterior chamber aspirates in endophthalmitis, but it was considered clinically unjustified to proceed with these aspirations during the series described, as in all other respects these were routine quiet postoperative eyes. In particular there was no lid oedema, chemosis, or loss of anterior chamber or corneal clarity (Fasanella, 1957; Theodore, 1978; Peyman *et al.*, 1978), no undue pain, and the hypopyons were well established by 24 hours (Allen and

Grove, 1976). The eyes surveyed showed no difference in behaviour whether with or without hypopyons, and only 7% of the actual hypopyon incidence was found by the firms treating the patients, partly because of the unremarkable appearance and behaviour of the eyes. Additionally, only routine postoperative treatment with prednisolone with neomycin 0·5% drops 3 times a day and atropine 1% drops 3 times a day was given, yet all but a few resolved in from 2 to 4 days. Allen and Grove (1976); Allen (1978); and Christy and Lall (1973) stress the poor visual outcome in endophthalmitis, Allen (1978) finding only a 10% incidence of better than 6/60 vision, while Peyman *et al.* (1978) achieved only 46% better than 6/60 vision despite the use of intravitreal antibiotics or vitrectomy. None of the patients in the series I described suffered any untoward sequelae, and in particular the visual outcome was normal, taking into account the state of the macula, etc. Forster (1974) believed that sterile inflammation was present in most cases when vitreous and anterior chamber aspirate cultures were negative, finding the commonly reported high incidence of visual loss in positive cultures, but an 88·9% retention of useful vision in those recent postoperative cases with negative cultures. The visual outcome in my series would appear to fit Forster's sterile inflammation group.

While I cannot deny the possibility that some of the hypopyons described were a reaction to organisms, none behaved as infected eyes, so that the term sterile was used partly to denote the benign nature of the outcome in these cases, and the results were published to draw attention to the high incidence of aseptic hypopyons with current surgical techniques.

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Notes

Vitrectomy symposium

A symposium on vitrectomy microsurgery will be held on 18 April 1979 at the Hyatt Regency Hotel in San Francisco, and it will be followed by 2 days of workshop sessions on vitrectomy techniques for the anterior segment surgeon. The symposium is designed to provide current thinking on the indications, techniques, and results of vitrectomy instrumentation in a variety of anterior and posterior segment eye diseases. Further information from: Extended Programs in Medical Education, Room 569-U, University of California, San Francisco, California 94143, USA.

Microsurgery course

The Department of Clinical Ophthalmology of the Institute of Ophthalmology will be conducting a course in Ophthalmic Microsurgery on 2–4 May 1979. It will be a practical course concerning common intraocular surgical procedures. Fees for the Course will be £80·00, and the *closing date for applications is 20 March 1979*. Application forms and further details may be obtained from Mrs P. M. Usher, Microsurgical Course Secretary, Department of Clinical Ophthalmology, Moorfields Eye Hospital, City Road, London EC1V 2PD.

Irish Ophthalmological Society

The Annual Meeting will be held in Cork on 24–25 May. Details from Dr J. G. Madden, 21 St Patrick's Hill, Cork, Ireland.

Electrophysiology of vision

The International Society for Clinical Electrophysiology of Vision will hold its 17th Symposium in Schloss Reinhardsbrunn, Friedrichroda, German Democratic Republic, on 5–10 June 1979. Two topics have been selected: 'Visual electrodiagnosis in systemic diseases' and 'Visual electrophysiology and localised retinal stimulation'. The official language of the symposium is English. Further information from Professor Dr E. Schmöger, Augenklinik der Medizinische Akademie, Nordhäuserstr. 74, 50 Erfurt, GDR.

Scanning electron microscopy

An international meeting on scanning electron microscopy in ophthalmology will be held at Brest, France, on 22 June 1979. Languages French and English. Speakers to submit abstracts by 31 March. Details from Dr J. Colin, Service d'Ophtalmologie, Centre Hospitalier Régional, 29279 Brest Cedex, France.

Canadian meeting

The 42nd Annual Meeting of the Canadian Ophthalmological Society will be held in Toronto on 24–27 June 1979. Further details from PO Box 8844, Ottawa, Ontario, Canada K1G 3G2.