

LETTERS TO THE EDITOR

Subretinal *Pseudomonas* abscess after lung transplantation

EDITOR,—Subretinal abscess is an uncommon clinical entity. We report such a case in a lung transplant patient in whom the causative organism was identified only after surgical drainage.

CASE REPORT

A 23-year-old white male underwent bilateral sequential lung transplantation for cystic fibrosis. One month later he presented with a 6 day history of visual loss of the right eye following a 24 hour pyrexia. Visual acuity was hand movements in the right eye and 6/6 in the left. There was a right relative afferent pupillary defect associated with a mild anterior uveitis and slight vitreous haze. Funduscopy revealed a large creamy white mass beneath the superotemporal retina (Fig 1). The left eye was normal.

An earlier postoperative pyrexia had been ascribed to *Pseudomonas* species identified from sputum cultures and had responded to treatment. Subsequently he had remained well on azathioprine, cyclosporin, prednisolone, and prophylactic itraconazole. On ophthalmic presentation microbiological and serological investigation revealed only a rising cytomegalovirus (CMV) IgM titre. A clinical diagnosis of presumed CMV or *Aspergillus* infection was made and the patient was commenced on amphotericin B and ganciclovir.

Three days later a pars plana vitrectomy was performed. Immediate microscopy (and subsequent culture) of the vitreous aspirate failed to reveal the causative organism. Consequently the subretinal abscess was drained through two retinotomies using a silicone tipped subretinal cannula. Following air-fluid exchange 1.2 ml saline containing 0.4 mg amikacin, 1 mg vancomycin, and 2.5 µg amphotericin B were injected into the vitreous cavity and the residual air space was then flushed with 25% perfluoropropane. The abscess fluid was demonstrated to contain Gram negative rods, later identified as *Pseudomonas aeruginosa* sensitive to colomycin and imipenem. A single dose of 0.3 mg colomycin was given into the vitreous cavity and a 2 week course of intravenous imipenem was begun. Following this the eye had an acuity of counting fingers and the view of the posterior pole was clear enough to reveal a flat retina with resolving subretinal lesions.

One month later the eye developed a retinal detachment associated with an inferotemporal dialysis and proliferative vitreoretinopathy (PVR) (CP2).¹ This was repaired by lensectomy, epiretinal membrane peel, encirclement, and silicone oil fill.

Four months after the initial ophthalmic surgery the eye has a visual acuity of hand movements. Moderate recurrence of the PVR (CP2) has resulted in some retinal distortion (Fig 2). The patient remains well on continued immunosuppressive therapy.

COMMENT

Organ transplant patients are at increased risk of infection. This may occur at an unusual site, follow an atypical course, or involve opportunistic organisms, making clinical diagnosis difficult. Although subretinal abscess is uncommon it has been reported in association with intravenous drug abuse² and immunosuppression after renal transplantation³; in these cases *Aspergillus* species were considered to be the causative organisms.^{2,3} Although no previous reports of *Pseudomonas* subretinal abscess exist, the outcome from Gram negative endophthalmitis is considered particularly poor.⁴

Since systemic investigation had failed to provide a definitive diagnosis, surgical drainage of the subretinal lesion was considered necessary for diagnostic and therapeutic reasons. Transscleral and internal approaches were considered: the chosen approach via vitrectomy and retinotomy has been described previously in the successful management of a subretinal abscess.²

In common with similar cases,³ the correct diagnosis of the presumed systemic infection was made only with the benefit of ophthalmic sampling for microbiological examination. With the benefit of this, systemic recovery with an acceptable ophthalmic outcome was achieved.

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- 2 Halperin LS, Roseman RL. Successful treatment of a subretinal abscess in an intravenous drug abuser. *Arch Ophthalmol* 1988; 106: 1651-2.
- 3 Weiss JN, Hutchins RK, Balogh K. Simultaneous aspergillus endophthalmitis and cytomegalovirus retinitis after kidney transplantation. *Retina* 1988; 8: 193-8.
- 4 Davey DG, Barza M, Stuart M. Dose response of experimental *Pseudomonas* endophthalmitis to ciprofloxacin, gentamicin and imipenem. Evidence for resistance to 'late' treatment of infections. *J Infect Dis* 1987; 155: 518-23.

Peripheral retinal neovascularisation associated with scleral encirclement

EDITOR,—Retinal detachment repair by scleral buckling may rarely give rise to ischaemia. We report a case in which peripheral retinal neovascularisation developed some time after the application of an encircling scleral buckle, and regressed after it was cut.

CASE REPORT

An 80-year-old white man presented in August 1993, with a 24 hour history of sudden onset blurring of the left vision. He had undergone left intracapsular cataract extraction in 1985, left rhegmatogenous retinal detachment repair with an encircling band in 1990, and vitrectomy, internal drainage, and silicone oil tamponade for re-detachment in July 1992. The silicone oil was removed in June 1993. The right eye was blind following penetrating injury in 1952. He took β blockers regularly for hypertension and he smoked cigarettes.



Fig 1A



Fig 1B

Figure 1 Rubeosis iridis present before (A) and absent after (B) cutting of the encircling band.



Figure 1 Subretinal abscess with overlying vasculitic changes.



Figure 2 Postoperative view of flat superior retina with moderate recurrence of proliferative vitreoretinopathy.