

uncomplicated cases. Some reports suggest that FDRs are unnecessary^{1,2} or that same-day examination is a satisfactory alternative.³ It has also been suggested that post-operative pressure spikes may require early intervention.^{4,5} We describe an unusual case of presumed post-operative infective endophthalmitis detected at FDR.

Case report

A 77-year-old man with a history of right herpes zoster ophthalmicus was admitted for day-case right cataract surgery. Visual acuity was count fingers; there were localised inferior posterior synechiae and corneal stromal scarring and thinning related to an anaesthetic cornea and previous infective keratitis. A superior scleral tunnel was therefore used by an experienced anterior-segment surgeon. The synechiae were easily broken and uncomplicated surgery was completed within 20 minutes.

Precautions to reduce the risk of infective endophthalmitis included iodine scrub of the lids before peri-bulbar block and surgery. Sterile instrumentation and aseptic protocols were adopted throughout. At the end of surgery, 1 mg of intracameral cefuroxime in 0.1 ml was used.

The surgeon requested FDR. The patient stated that his sight had improved and his eye was comfortable and only slightly red. Visual acuity was 6/36, the bulbar conjunctiva was very injected, and marked fibrinous uveitis with an organised 0.8 mm hypopyon was present. (Figure 1). No clear vitreous or retinal view was possible, but there was a uniform red reflex.

This was treated as post-operative infective endophthalmitis. An aqueous tap and vitreous biopsy were taken with subsequent intravitreal vancomycin 1 mg, intravitreal amikacin 0.4 mg, and intracameral vancomycin 1 mg (each in 0.1 ml). Topical and systemic antibiotics and steroids followed with resolution of the signs of infection and improvement of vision to 6/12 after 3 days .

Aqueous gram stain was clear, but mixed Grampositive cocci and bacilli were present in the vitreous,



Figure 1 Fibrinous uveitis and hypopyon 1 day after cataract surgery.

some of which were intracellular in pus cells. No pathogens grew on culture.

Comment

This was uncomplicated surgery using evidence-based methods for preventing infective endophthalmitis. ^{6,7} FDR resulted in the early detection and treatment with excellent outcome of a potentially devastating complication. The authors believe that this case demonstrates the need to be able to offer FDR in selected cases and be able to immediately deal with complications. All purchasers of cataract services need to take this into account in making informed decisions about quality service provision.

References

- 1 Whitefield L, Crowston J, Little BC. First day follow up for routine phacoemulsification? Br J Opthalmol 1996; 80: 148–150.
- 2 Tinley CG, Frost A, Hakin KN, McDermott W, Ewings P. Is visual outcome compromised when next day review is omitted after phacoemulsification surgery? A randomised controlled trial. *Br J Opthalmol* 2003; 87: 1350–1355.
- 3 Talks SJ, Rosen P. First day follow up for routine phacoemulsification? Br J Opthalmol 81: 421–422.
- 4 Tranos PG, Wickremasinghe SS, Hildebrand D, Asaria R, Mearza A, Ghazi-Nouri S et al. Same-day versus first-day review of intraocular pressure after uneventfaul phacoemulsification. J Cataract Refract Surg 2003; 29: 508–517.
- 5 Alwitry A, Rotchford A, Gardner I. First day review after uncomplicated phacoemulsification: is it necessary? Eur J Ophthalmol 2006; 16: 554–559.
- 6 Barry P, Seal DV, Gettinby G, Lees F, Peterson M, Revie CW. ESCRS study of postoperative endophthalmitis after cataract surgery: preliminary report of principle results from a European multicenter study. J Cataract Refract Surg 2006; 32: 407–410.
- 7 Speaker MG, Menikoff JA. Prophylaxis of endophthalmitis with topical povidone-iodine. *Ophthalmology* 1991; 98(12): 1769–1775.

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Sir

Bilateral endogenous endophthalmitis caused by Aeromonas hydrophila

We describe the first case of bilateral endogenous endophthalmitis caused by *Aeromonas hydrophila* following bowel surgery.

Case report

A 73-year-old woman suffered prolonged paralytic ileus requiring a central venous line (CVL) for total parenteral

nutrition following laparotomy to relieve intestinal obstruction. Within the first post-operative week, she had abdominal wound infection, septicaemia, and right knee septic arthritis. One week after her laparotomy, she complained of pain in the right eye with blurred vision. On ocular examination, vision was no perception of light in the right eye and 6/6 in the left. The right eye was injected with a cloudy cornea (Figure 1), IOP of $35 \,\mathrm{mmHg}$, $2 + \mathrm{cells}$ in the anterior chamber, an amaurotic pupil, absent red reflex while the left eye appeared normal. Anterior chamber and vitreous tap with intravitreal antibiotics (vancomycin and gentamicin) was performed and revealed brown-green-coloured vitreous aspirate. The following morning, she complained of pain and blurred vision in the left eye (Figure 2); the vision was no perception of light, and clinical findings were identical to those found in the right eye. Therapeutic/ diagnostic vitrectomy was performed in an attempt to save any useful vision but was unsuccessful. Blood samples, right knee aspirate, vitreous aspirate from both eyes, and samples from the tip of CVL all grew the Gramnegative bacillus, A. hydrophila, sensitive to ciprofloxacin and gentamicin.

Comment

A. hydrophila is a rod-like environmental bacterium, hich causes systemic infections 1.2 as well as conjunctivitis, keratitis, and endophthalmitis, especially post trauma. 1.4 It is common in Taiwan as compared to the West because of its ubiquity in the natural environment and the increasing number of susceptible hosts in Taiwan. 2 A. hydrophila infections are usually seen in specific circumstances like in immunocompromised patients, especially those with malignancy or liver disease. 2 A. hydrophila is highly pathogenic especially to the eye, triggers a robust inflammatory response 2 with a rapid clinical course causing extensive necrosis 3 with suppurative inflammation, and has a poor visual prognosis. 3

This particular patient had a pond at home, and a sample from it grew *A. hydrophila* that may have entered her blood through the CVL. Strict aseptic technique, minimum handling, and continuous monitoring of patients with CVL can reduce the risk of infection.⁵

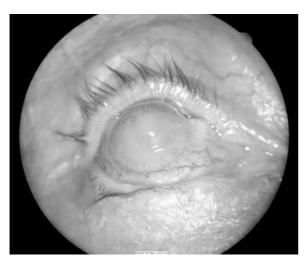


Figure 1 Injected right eye showing purulent discharge.

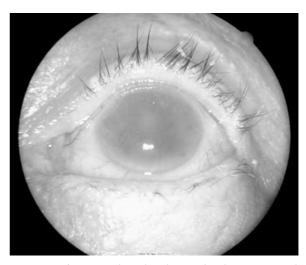


Figure 2 Left eye is relatively white with a hazy view to the anterior chamber.

References

- 1 Cohen KL, Holyk PR, McCarthy LR, Peiffer RL. Aeromonas hydrophila and Plesiomonas shigelloides endophthalmitis. Am J Ophthalmol 1983; 96(3): 403–404.
- 2 Ko W-C, Chiang S-R, Yan J-J, Chuang Y-C. Comparative pathogenicity of bacteraemic isolates of *Aeromonas hydrophila* and *Klebsiella pneumoniae*. Clin Microbiol Infect 2005; 11: 553–558.
- 3 Frieling JS, Rosenberg R, Edelstein M, Colby SD, Kopelowitz NN. Endogenous *Aeromonas hydrophila* endophthalmitis. *Ann Ophthalmol* 1989; 21(3): 117–118.
- 4 Sire JM, Ropert P, Donnio PY. Aeromonas hydrophila blepharoconjunctivitis. Eur J Clin Microbiol Infect Dis 1990; 9(12): 904–905.
- 5 Posa PJ, Harrison D, Vollman KM. Elimination of central lineassociated bloodstream infections: application of the evidence. AACN Adv Crit Care 2006; 17(4): 446–454 quiz 456.

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Effect of ocular massage on intraocular pressure and corneal biomechanics

Ocular massage is believed to be a simple procedure to reduce intraocular pressure (IOP). Ocular response analyser (ORA) is a non-contact tonometer that measures corneal hysteresis (CH) and corneal resistance factor (CRF). The ORA provides a corneal-compensated IOP (IOPcc), which is less affected by central corneal thickness (CCT). How much IOP can be reduced from ocular massage and how ocular massage affects corneal biomechanics?