keratoplasty (DLK) and Deep Lamellar Endothelial Keratoplasty (DLEK). Neovascularisation of the graft surface or interface is a recognised complication of lamellar keratoplasty, which may be associated with opacification.⁸ However, to the best of our knowledge, such sudden and extensive haemorrhage from these vessels has not been reported previously. The patient's use of clopidogrel, which impairs platelet aggregation and thrombus formation, could have been a contributory factor to his presentation.

Acknowledgements

968

We appreciate the advice and input of Dr Matthew Cooper in the preparation of this manuscript. No grants or sponsoring organisations have been involved in the work for this submission. The authors have no proprietary or commercial interests related to the manuscript. It has not been presented previously.

References

- 1 Wood T. Lamellar transplants in keratoconus. Am J Ophthalmol 1977; 83: 543–545.
- 2 Bourne WM. Cellular changes in transplanted human corneas. *Cornea* 2001; **20**: 560–569.
- 3 Morris E, Kirwan J, Sujatha S, Rostron C. Corneal endothelial specular microscopy following deep lamellar keratoplasty with lyophilised tissue. *Eye* 1998; **12**: 612–622.
- 4 Benson WH, Goosey CB, Prager TC, Goosey JD. Visual improvement as a function of time after lamellar keratoplasty for keratoconus. *Am J Ophthalmol* 1993; **116**: 207–211.
- 5 Richard J, Paton D, Gasset A. A comparison of PK and lamellar keratoplasty in the surgical manangement of keratoconus. *Am J Ophthalmol* 1978; 86: 807–811.
- 6 Saini JS, Jain AK, Sukhija J, Saroha V. Indications and outcome of optical partial thickness lamellar keratoplasty. *Cornea* 2003; 22: 111–113.
- 7 Barraquer J. Lamellar keratoplasty (special techniques). Ann Ophthalmol 1972; 4: 437–469.
- 8 Soong HK, Katz DJ, Farjo AA, Sugar A, Meyer RF. Central lamellar keratoplasty for optical indications. *Cornea* 1999; 18: 249–256.

E Lee, I Mavrikakis, B Paul and C Liu

Department of Ophthalmology, Sussex Eye Hospital, Eastern Road, Brighton BN2 5BF, UK

Correspondence: C Liu, Tel: +44 1273 606126; Fax: +44 1273 693674. E-mail: CSCLiu@aol.com

Eye (2006) **20**, 967–968. doi:10.1038/sj.eye.6702079; published online 9 September 2005

Sir,

Postoperative endophthalmitis due to an unusual pathogen: *Alcaligenes faecalis*

Acute-onset postoperative endophthalmitis occurring 2–7 days after surgery is often caused by *Staphylococcus epidermidis, Staphylococcus aureus,* and Gram-negative bacilli.¹ *Alcaligenes faecalis,* a Gram-negative rod, has been reported as a cause of bacterial keratitis, but there has been no documented report of postcataract surgery of endophthalmitis caused by *A. faecalis.*

Phacoemulsification via scleral tunnel with posterior chamber intraocular lens was performed in the left eye of a 53-year-old lady. No sutures were put. The surgery was uneventful. On the first postoperative day, the patient had a visual acuity of 6/18. The ocular media was clear and fundus was normal. Slit-lamp examination revealed a 1+ flare and cells. On the second postoperative day, the patient complained of sudden pain and drop in vision. Examination revealed edematous lids and exudates in the pupillary plane covering the intraocular lens. A 4+ flare and cells were present (Figure 1a). There was a 2 mm hypopyon and no red reflex. Vision had reduced to light perception. An ultrasonography B-scan of the left eye revealed echogenic vitreous and a diagnosis of postoperative endophthalmitis was made. Vitreous and aqueous aspirates were sent for Gram's stain, KOH study, and bacterial and fungal culture/sensitivity. Intravitreal and intracameral injections of vancomycin (1 mg/0.1 ml) and amikacin (400 μ g/0.1 ml) were given simultaneously. Intravenous ciprofloxacin 200 mg 12 hourly was also started. Gram's and KOH were negative, but bacterial

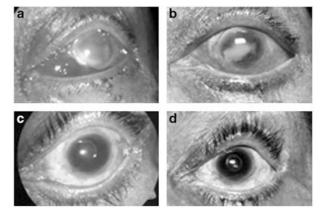


Figure 1 (a) The left eye shows edematous lids, congestion, and exudates in the anterior chamber on second postoperative day. (b) The eye on the eighth postoperative day after intravitreal injection showing reduction of exudates. (c) The eye with posterior capsule opacification at the end of second month. (d) The eye after Nd:Yag opening.

culture of both aqueous and vitreous aspirates revealed A. faecalis, sensitive to chloramphenicol, tetracycline, cefotaxime, amikacin, and ciprofloxacin. Cefotaxime eye drops (5% concentrated) and 2% fortified amikacin eye drops in addition to 1% prednisolone acetate eyedrops were started. The patient improved symptomatically as well as clinically (Figure 1b). The second set of cultures taken from the vitreous was found to be negative. With negative cultures and reduction in vitreous exudates by ultrasonography, the patient was started on oral prednisolone 60 mg daily. At the end of 2 months the eye was quiet (Figure 1c). Posterior capsule opacification was noted. Visual acuity did not improve beyond hand movements. Fundus examination after Nd:YAG capsulotomy (Figure 1d) revealed consecutive optic atrophy and macular infarction.

Organisms of the Alcaligenes genus are a group of nonfermenting Gram-negative bacilli found in soil and water. Most isolates of A. faecalis from blood or respiratory secretions are related to the contamination of hospital equipment or fluids with the organism, with resulting human colonization or infection.² It has also been recovered from corneal ulcers, ear discharges, wound drainage, and faeces.^{3,4} Identification of Alcaligenes species is made by oxidase-positive, indolenegative, and urease-negative organisms with flat, spreading edges on blood-agar plates.5 A. faecalis has been associated with infections in immunocompromised patients, but our patient's medical history was unremarkable. The pathogenic role and virulence of this organism is not clear. The virulence has been attributed to various factors including histamine sensitizing factor, adherence and cytotoxicity, and exocellular 'o' antigen. Although most of the studies conducted were based on susceptibility of avian and mammalian cells to the above factors, the same can hold true for humans.6

The patient developed endophthalmitis on the second day after surgery. A. faecalis endophthalmitis developing on the fourth day following penetrating keratoplasty was reported.⁷ An epidemiological search for the organism revealed the conjunctival sac as the source of infection. The organism must have gained entry into the eye as surface fluid refluxes through the wound during surgery. Another explanation could be the intraocular lens getting contaminated as it touches the ocular surface. There was good anatomic outcome and good response to intravitreal and intravenous antibiotics. Perhaps a better visual outcome could have been possible if the macula and optic nerve events did not take place. However, no conclusion can be drawn regarding its virulence based on this case report.

References

- 1 Hughes DS, Hill RJ. Infectious endophthalmitis after cataract surgery. *Br J Ophthalmol* 1994; **78**: 227–232.
- 2 Mandel GL, Bennet JE, Dolin R. Infectious diseases and their etiologic agents. In: Psteinberg J, Rio CD (eds). *Principles and Practice of Infectious Diseases*. Churchill Livingstone: Philadelphia, 2000 pp 2465–2466.
- 3 Tayeri T, Kelly LD. *Alcaligenes faecalis* corneal ulcer in a patient with cicatricial pemphigoid. *Am J Ophthalmol* 1993; **115**: 255–256.
- 4 Bizet J, Bizet C. Strains of *Alcaligenes faecalis* from clinical material. *J Infect* 1997; **35**: 167–169.
- 5 Koneman EW, Allen SD, Janda WM, Schrekenberger PC, Winn Jr WC. Color Atlas and Textbook of Diagnostic Microbiology, 5th ed. JB Lippincott: Philadelphia, 1997.
- 6 Simmons DG, Rose LP, McCorkle FM, Luginbuhl GH. Histamine sensitizing factor of Alcaligenes faecalis. *Avian Dis* 1983; 27(1): 171–177.
- 7 Khokhar DS, Sethi HS, Kumar H, Sudan R, Sharma N, Nayak N. Post-keratoplasty endophthalmitis by *Alcaligenes faecalis*. *Cornea* 2002; **21**(2): 232–233.

S Kaliaperumal, R Srinivasan, A Gupta and SC Parija

Department of Ophthalmology and Microbiology, Jawaharlal Institute of Postgraduate Medical Education and Research, Pondicherry, India

Correspondence: R Srinivasan, Department of Ophthalmology, Jawaharlal Institute of Postgraduate Medical Education and Research, Gorimedu, Pondicherry-605 006, India Tel: +91 413 2272381; Fax: +91 413 2272067. E-mail: renuuka@hotmail.com

Eye (2006) **20**, 968–969. doi:10.1038/sj.eye.6702080; published online 2 September 2005

Sir,

Choroidal neovascularization in retinochoroidal coloboma: thermal laser treatment achieves long-term stabilization of visual acuity

Retinochoroidal coloboma is a congenital abnormality caused by faulty closure of the embryonic fissure. Choroidal neovascularization (CNV) secondary to retinochoroidal coloboma is an uncommon complication.

The treatment option in vision-threatening cases may be laser photocoagulation.^{1–4} However, no reports about long term outcome of this therapy has been reported so far. This may be of interest in the era of new therapeutic