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#### Sir,

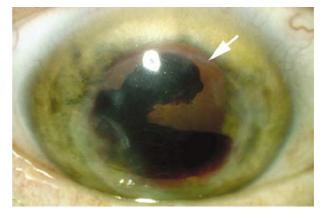
# Intralamellar haemorrhage 44 years following lamellar keratoplasty

Lamellar keratoplasty is a procedure in which partial thickness donor cornea, devoid of endothelium and Descemet's membrane, is transplanted onto a recipient bed that has had its anterior stroma removed. It has been performed for over 100 years and allows the removal of diseased anterior stroma while the host's own endothelium is preserved. We describe a patient who developed corneal neovascularisation following a lamellar graft, and then subsequently haemorrhaged into the graft–host interface, causing significant morbidity.

# Case report

The patient we describe underwent a right lamellar keratoplasty in 1960, following herpes simplex keratitis. He was intermittently treated for recurrences of the keratitis at the graft margins, but continued to have a corrected visual acuity in the affected eye of 6/6 up to his last routine review in May 2002. At that time, there was evidence of inactive neovascularisation at the temporal margin of the graft, but no epithelial defects or signs of inflammation. He had a history of ischaemic heart disease and had been taking clopidogrel 75 mg once daily since February 2002.

After 1 year the patient represented with sudden loss of vision in his right eye. There was no history of trauma or preceding irritation. The acuity in the right eye was 6/60 unaided, 6/18 with pinhole. There was haemorrhage within the right corneal stroma, and an inferior fluid level (Figure 1). The anterior and posterior



**Figure 1** Slit-lamp photograph of the right eye showing clear lamellar graft (arrow indicates edge), and interface haemorrhage with inferior fluid level.

margins of the haemorrhage were very regular and elliptical in cross-section, consistent with haemorrhage in between the host and graft layers of stroma. The intraocular pressure was normal and the epithelium was intact and regular. The vessels noted previously at the temporal margin of the graft were more engorged than on his preceding visit and so topical steroids and aciclovir were prescribed. Over the following month, the haemorrhage became more diffuse but less dense. The patient had functionally acceptable vision from his other eye and elected for conservative management.

# Discussion

The first successful lamellar keratoplasties were performed towards the end of the 19th century. The procedure enables the removal of diseased anterior stroma while preserving the recipient's endothelium and so avoids the major problems of endothelial rejection and accelerated endothelial cell loss seen with penetrating keratoplasty.<sup>1–3</sup> It was therefore a particularly favourable technique before the introduction of corticosteroids, new surgical techniques, and modern eye banking allowed improved success rates for penetrating surgery in the late 1970s. Modern penetrating keratoplasty (PKP) can achieve better visual results than lamellar keratoplasty (LKP), and is less technically challenging and time consuming to perform.<sup>4,5</sup> LKP does, however, continue to have a role in tectonic surgery, and can be used as an alternative to PKP in countries where there is an absence of high-quality donor material, and in patients with increased risk of blunt ocular trauma.

The optical success of LKP is most commonly limited by residual host bed scarring, astigmatism, graft surface irregularities, or opacities at the donor–host interface.<sup>6–8</sup> Some of these have been addressed by modern advancements in lamellar surgery, namely deep lamellar 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.<sup>8</sup> 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.

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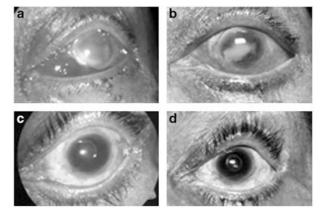
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## Sir,

# 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.<sup>1</sup> *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  $\mu$ 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.