Sir,
Recurrent endothelial graft rejection after DSAEK triple procedure

We report a case of recurrent endothelial graft rejection after Descemet's stripping automated endothelial keratoplasty (DSAEK) triple procedure owing to failure of treatment compliance.

Case report

A 49-year-old woman was diagnosed with bilateral Fuchs' endothelial dystrophy and cataracts. An uneventful phacoemulsification with insertion of intraocular lens and DSAEK was performed in her right eye. An 8.5-mm-diameter donor lenticule was prepared using a 350- μ m microkeratome head. The donor lenticule was inserted in the anterior chamber of the recipient eye using Busin's glide as described previously.¹ At 1 month after surgery, a BCVA of 20/80 was achieved in the operated eye. The patient was advised to continue prednisolone acetate 1% eye drops QID. She returned 4 weeks later, complaining of redness and diminution of vision in the operated eye, which was present for 3 days. Clinical history revealed that the patient had not used corticosteroid drops for the previous 4 weeks. On examination, BCVA was hand movements OD. Slit lamp biomicroscopy revealed corneal oedema involving the donor cornea (Figure 1a, arrow), multiple keratic precipitates on the donor lenticule (Figure 1a, block arrow), and 3+ cells in the anterior chamber. Her central corneal thickness (CCT) was 890 μ m OD. A diagnosis of endothelial graft rejection was made. The patient was admitted to the hospital and started on hourly prednisolone acetate 1% eye drops during waking hours. After 48 h, there was reduction in severity of corneal oedema (Figure 1b, asterisk) and anterior chamber activity. Corticosteroid drops were subsequently tapered to a dose of QID over a period of 1 week. At the end of 1 week, BCVA was 20/80 with a CCT of 774 μ m. Thereafter the patient was followed up at the Cornea Clinic every 3 months, where her treatment was maintained at a twice-daily dose of prednisolone acetate 1% eye drops. She presented to the emergency department 9 months post-DSAEK with another episode of endothelial graft rejection after stopping the eye drops for 3 weeks. The BCVA

was 20/200 in the operated eye. The second episode of endothelial graft rejection could be reversed successfully over a period of 1 week using a similar treatment regime of intensive topical corticosteroids. A final BCVA of 20/40 was achieved in the affected eye at the end of 3 weeks.

Comment

Immunological graft rejection is a potential risk after DSAEK.^{2–5} In a large series of 54 patients with graft rejection after endothelial keratoplasty, Price *et al*³ reported that 33% patients were asymptomatic at the time of presentation. None of the eyes in this series demonstrated a classic endothelial rejection line. Moreover, 39% of the patients were not using any corticosteroid eye drops, owing to poor compliance.

Our case manifested the onset of rejection after discontinuation of topical corticosteroids. Rapid visual gain and smooth ocular surface may have contributed to the poor compliance in this case. We recommend that patients after DSAEK should have easy access to emergency eye care as asymptomatic endothelial graft rejection is a possible complication. In addition, patient compliance in terms of regular postoperative visits and need for long-term corticosteroid eye drops to prevent allograft rejection after DSAEK need to be emphasised.

Conflict of interest

The authors declare no conflict of interest.

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Figure 1 (a) Slit lamp photograph showing multiple keratic precipitates (block arrow) and graft oedema on presentation (arrows). (b) Slit lamp photograph showing resolving graft oedema (asterisk) after 48 h of therapy with topical corticosteroid eye drops.

Eye (2010) **24**, 1403; doi:10.1038/eye.2010.26;
published online 19 March 2010