

Sir,

We read with interest the letter from Pearson and Sandford-Smith regarding corneal autografts.¹ We would like to share our experience of this rare procedure by presenting a 78-year-old woman referred to this institution. The patient had developed an extensive corneal scar (adherent leukoma) and cataract secondary to trauma to the left eye at the age of 14 years. So extensive was the anterior segment disruption that enucleation was offered at the time of injury, but was declined. With conservative management the patient was left with a residual visual acuity of perception of light in the affected eye.

At the age of 78 years, the patient suffered a central retinal artery occlusion of the previously healthy right eye, reducing the visual acuity to no perception of light. She was referred for consideration of allogenic corneal grafting of the left eye. Investigation of the left eye by B-scan ultrasound and Ganzfeld electroretinogram/flash

visually evoked potentials demonstrated an intact posterior segment with some useful retinal function.

In order to eliminate the risk of rejection, it was decided to perform corneal autografting. Transposition of 7.5 mm diameter corneal buttons was performed along with a left cataract extraction and posterior chamber lens implant (Figs. 1, 2). The patient had an uneventful post-operative course apart from some stromal thinning of the right cornea secondary to drying which responded to topical lubricants. By 2 months post-operatively the patient had a best-corrected visual acuity in the left eye of 6/24 and could read N8 text, without the benefit of a contact lens. By 10 months post-operatively, the best-corrected visual acuity was 6/12 and N8 text. There were no episodes of rejection recorded.

We agree with Pearson and Sandford-Smith¹ and others^{2,3} that corneal autografting is an extremely rare operation to perform, but in specially

selected patients it can restore useful vision and avoids the risk of rejection. This case also reinforces the view that eyes should only be enucleated after trauma as a last resort when all other measures to control globe integrity, infection or pain have failed, as one cannot predict events 64 years in the future – as demonstrated by our patient.

References

1. Pearson AR, Sandford-Smith JH. Corneal autografts: are the theoretical advantages achieved in practice? *Eye* 2000;14:99–100.
2. Hodkin MJ, Insler MS. Transplantation of corneal tissue from a blind eye to a high risk fellow eye by bilateral penetrating keratoplasty. *Am J Ophthalmol* 1994;117:808–9.
3. Oplinger NL, Zaidman GW, Buxton DF. A comparison of corneal autografts with homografts. *Ophthalmic Surg Lasers* 1998;29:305–8.

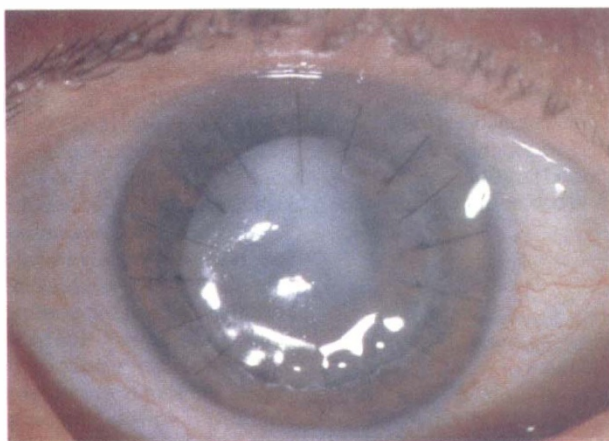


Fig. 1. Right eye 5 months post-operatively showing the transposed corneal scar.

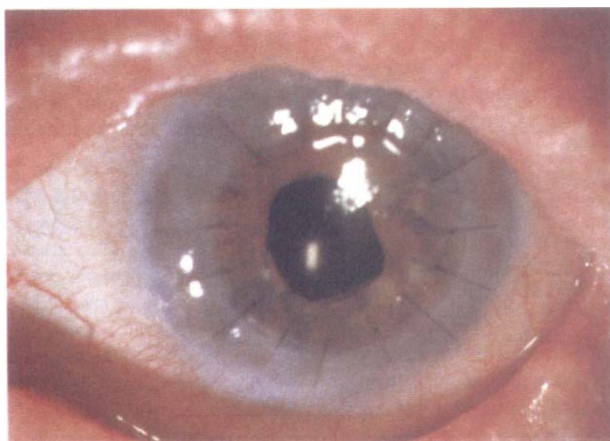


Fig. 2. Left eye 5 months post-operatively showing a clear cornea.

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Sir,

We thank Mr Browning, Mr Shah and Professor Dua for their interest in our case reports and for adding an informative case of their own. Their case is similar to our second case and we agree with them that, as one cannot predict the fate of a remaining good eye after trauma (or other ocular disease), before deciding to remove the damaged eye the absence of any visual potential should be established. In addition, tissue from a blind eye (e.g. cornea, sclera or