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-Smith[1] 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.

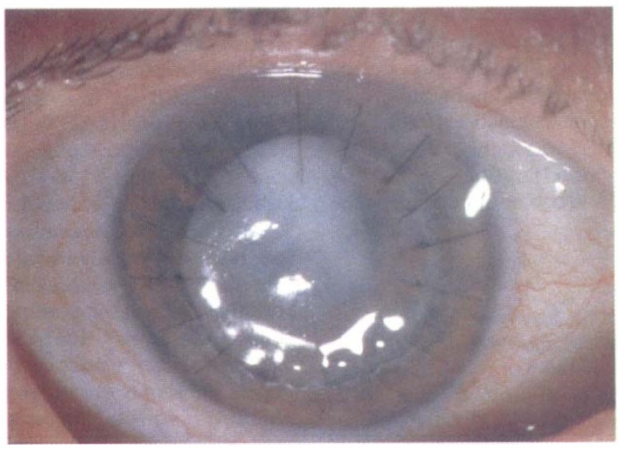

Fig. 1. *Right eye 5 months post-operatively showing the transposed corneal scar.*

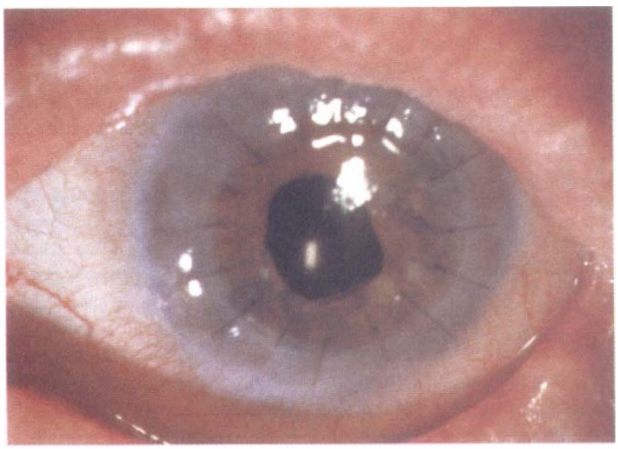

Fig. 2. *Left eye 5 months post-operatively showing a clear cornea.*

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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

conjunctiva) may still, occasionally, be of value to the fellow eye at an unknown point in the future. These considerations need to be taken into account when deciding to remove an eye.

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John H. Sandford-Smith
(retired)

Sir,

I read with interest the article by R. Newsom *et al.* regarding diabetic retinopathy screening.[1] I note their comments that oral fluorescein angiography (OFA) is as effective as clinical examination in the detection of maculopathy and that OFA may be useful as a method of diabetic retinopathy (DR) screening.

I acknowledge that fundus fluorescein angiography (FFA) can be useful, for example, in the management of patients with subtle or with severe macular oedema. In some cases FFA can be useful by establishing that maculopathy is due to diabetic retinopathy rather than age-related macular degeneration or central serous chorioretinopathy.

However, OFA is an invasive procedure associated with risks including retinal phototoxicity, nausea, vomiting, yellow skin, photosensitivity, syncope, anaphylaxis and death.

OFA can be useful particularly in children. However, children with diabetes do not develop significant DR. Accordingly I question the purported role of OFA in DR screening.

Reference

1. Newsom R, Moate B, Casswell T. Screening for diabetic retinopathy using digital colour photography and oral fluorescein angiography. Eye 2000;14:579–82.

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Sir,

We thank Mr Infeld for his interest in our paper and agree with him that oral fluorescein angiography (OFA) should be used only in selected cases. Type II diabetes accounts for 85–90% of cases of diabetes, and the incidence of type II diabetes is predicted to rise rapidly over the next 20 years. The majority of blindness in this population will be due to diabetic maculopathy.[1] As visual function improves in only a minority following laser treatment,[2] we aimed to detect maculopathy before visual loss using oral fluorescein angiography (OFA).

Intravenous fluorescein angiography is known to carry a certain risk. A study of 5000 patients undergoing intravenous angiography found 2.24% had nausea, 1.78% vomited, 0.34% had urticaria while 0.14% had syncope or dyspnoea (total = 4.82%).[3] Other surveys found respiratory and cardiac reactions occurred in 0.03% and 0.02% of cases respectively.[4] In contrast OFA is regarded as a safer technique: first used by Ehrlich in 1882,[5] there is a single reported case of an allergic reaction.[6] A recent series of 1787 cases found that 1.7% had minor side effects, such as nausea or mild itching, none of which required treatment. No respiratory, cardiac or anaphylactic reactions were noted, the oral route reducing the risk of anaphylactic and cardiovascular reactions.[7]

We regard OFA as a relatively safe technique and one that could be used as a second-line screening test in patients with suspicious maculas. A major finding of the paper was that non-stereo digital photography did not accurately detect diabetic maculopathy. Other methods should be sought to detect maculopathy prior to visual loss. Whether OFA is one of them remains to be seen.

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ADDENDUM

Sir,

Eye published last year (issue 14/3B) the papers that grew out of the Cambridge Symposium on Glaucoma. This was a truly outstanding symposium, and that issue of *Eye* constitutes an excellent general reference on the state of knowledge in the field of glaucoma at the present time. Professor Hitchings had asked me to comment on the concept of 'resetting' the intraocular pressure. In my report I commented on the idea that it was not just lowering of intraocular pressure which may have a role in preventing progressive glaucomatous deterioration, but also stabilisation of the intraocular pressure, regardless of the absolute level. I failed to include a paper published by Bergeå, Bodin and Svedbergh[1] dealing precisely with this issue and providing important support for the idea that the variability of intraocular pressure may be a factor in predisposing towards deterioration. This note is written in order to bring the readers' attention to this excellent study by these authors.

Reference

1. Bergeå B, Bodin L, Svedbergh B. Impact of intraocular pressure regulation on visual fields in open-angle glaucoma. Ophthalmology 1999;106:997–1005.

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