

level attained limited by coexistent posterior segment disease in 3 of the 4 patients.

Autografts avoid the risk of immunological graft rejection. Although this is an important advantage for any patient requiring a corneal graft, it may be of particular benefit where poor compliance with post-operative topical medication is likely or where access to ophthalmic services is limited. The need for prolonged and frequent follow-up is also likely to be reduced. In countries where donor corneas are unavailable corneal autografts may offer the only means of restoring vision to an eye with a diseased cornea if the fellow eye has no visual potential but a healthy cornea.

The unusual combination of clinical features that need to be present to consider autografting means that the procedure is rarely carried out. Hodkin and Insler¹¹ reported a case in which a homograft had failed in an eye with previous stromal keratitis, the fellow eye being blind from traumatic optic neuropathy. The eye achieved a pinhole visual acuity of 6/12. Tole *et al.*² reported a case in which autografting of the cornea was combined with a limbal stem cell transplant in an eye that had sustained a severe alkali injury, the fellow eye being removed due to a large choroidal melanoma. The patient achieved a visual acuity of better than 6/9.

Oplinger *et al.*³ reported 4 cases and warned of the risk of high post-operative astigmatism. However, 3 of the 4 cases had less than 7 dioptres of astigmatism. Significant post-operative astigmatism remains a problem in all corneal graft surgery and is unlikely to be exacerbated by using an autograft. Indeed, because of the lack of the risk of rejection, large-diameter autografts may be used safely and this may reduce the risk of significant post-operative astigmatism.

In summary, corneal autografting avoids the risk of graft rejection and in selected patients is successful in restoring useful vision.

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A.R. Pearson ✉
J.H. Sandford-Smith
Department of Ophthalmology
Leicester Royal Infirmary
Leicester LE1 5WW, UK

Sir,

Scleral dellen complicating primary pterygium excision

Surgical excision of pterygium is a commonly performed procedure with complication rates ranging from 0¹ to 26%.² We report a case where severe scleral dellen resulted as a complication of bare sclera excision of a primary pterygium.

Case report

A 36-year-old plumber presented with a 6 month history of extreme irritation of both eyes. His working environment was dusty with frequent use of blow torches. Visual acuity was 6/5 in both eyes. Eye examination was normal apart from bilateral pterygia. Notably his aqueous tear production was normal (Schirmer's test: 12 mm in 5 min) as was the quality of his tear film.

Under local anaesthetic (lignocaine 2% with adrenaline) the right nasal pterygium was excised in its entirety with subjacent tissue down to bare sclera (minimal cautery used). Following discharge the patient was prescribed oc. Betnesol-N (Evans) q.d.s. On review 2 weeks following surgery, the patient complained of a 2 day history of severe pain in the right eye. Slit-lamp examination revealed a large, deep dellen centred on the bare sclera surrounded by oedematous conjunctiva. The ciliary body was visible through the thin sclera. Management involved covering the dellen with a conjunctival flap and regular antibiotic ointment.

Apart from the drying effect produced by the oedematous conjunctiva, no other aetiological factor was found. History, clinical examination and laboratory tests (including full blood count, ESR, serum rheumatoid factor and autoantibody screening) failed to reveal autoimmune inflammatory disease or gout.

Comment

Surgical management of pterygia involves bare sclera excision with or without adjunctive therapy. Recurrence rates after bare sclera excision alone vary from 32%² to 88%,³ suggesting that a number of factors play a role in producing these disparate results. Race, patient age, latitude,^{3,4} experience of the surgeon, severe tear film abnormality and return to unfavourable working conditions,⁴ are all suggested explanatory factors for the variation in reported recurrence rates.

Adjunctive treatments include: beta irradiation, conjunctival autograft and mitomycin-C. Beta irradiation has mostly fallen out of favour because of its severe complications.⁵ Post-operative mitomycin-C drops have,

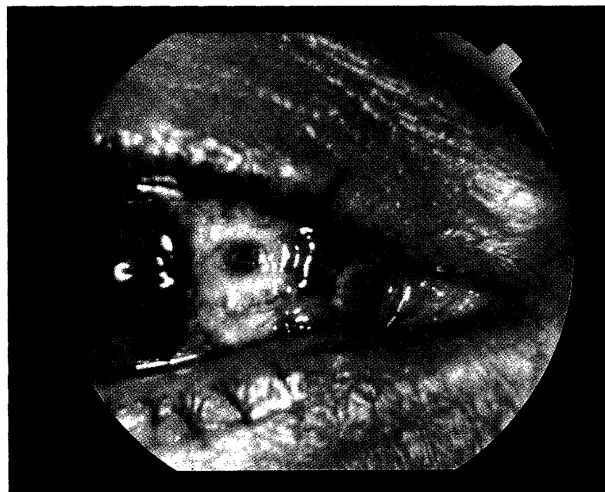


Fig. 1. Severe scleral dellen as a complication of bare sclera excision.

apart from side-effects of pain and photophobia,^{2,3,7} been associated with late, sight-threatening complications; even at concentrations (0.02–0.04%) previously reported as safe.^{7,8} Conjunctival autografting is associated with complications (graft retraction, graft cysts, haematoma, dellen) which tend to be less severe and rarely sight-threatening.⁶

Corneo-scleral dellen⁶ and corneal perforation⁷ are described complications of pterygium excision with adjunctive treatment, but to our knowledge scleral dellen has not been a previously reported complication of the bare sclera technique. In our case, because there was good compliance with post-operative medication, no return to adverse working conditions and no severe tear film deficiency, we relate this complication to a dellen effect created by the heaping up of granulation tissue at the margin of the bare sclera (Fig. 1). There was no evidence to suggest that this was an episode of scleritis of either autoimmune or surgical origin – a diagnosis further refuted by the resolution of the lesion with a conjunctival flap.

To our knowledge this represents the first reported case of scleral dellen as a complication of non-adjunctive, bare sclera excision of primary pterygium; this is therefore a procedure not without serious complication. This adds further support to the use of conjunctival autografting as a first-line treatment for primary pterygium.

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S. Chen
C. Noonan ✉
Ophthalmic Department
Warrington Hospital NHS Trust
Lovely Lane
Warrington
Cheshire WA5 1QG, UK

Tel: +44 (0)1925 635911
Fax: +44 (0)1925 662395

Sir,

An effective therapeutic modality for the management of hyperaemic conjunctival margins following the Hughes' procedure

A common cosmetic problem following the Hughes' procedure is the presence of an exuberant and hyperaemic conjunctivalised lid margin (22% in our recent series). Frequently this feature is seen for the first few months following division of the Hughes' flap¹ but with time the conjunctiva usually retracts, and the mucocutaneous junction at the lid margin settles down forming a normal appearance. The question remains how to manage the patient with a persistently unacceptable cosmetic result.

Case report

A 50-year-old man underwent excision of the middle half of the right lower lid using Mohs' micrographic technique for a recurrent basal cell carcinoma. The defect was repaired with a tarsoconjunctival pedicle flap to reform the posterior lamella and an advancement flap of skin to re-form the anterior lamella. The tarsoconjunctival flap was divided at 21 days leaving the conjunctiva flush with the skin edge. The conjunctiva was not sutured to the skin. Nine months following the procedure the lid was cosmetically unsatisfactory with exuberant and hyperaemic conjunctiva extending too far anteriorly over the lid margin (Fig. 1).

Following the instillation of topical amethocaine drops 1% and injection of 0.5 ml lignocaine 2% to the lid margin a protective contact lens was inserted and argon green laser photocoagulation was applied to the hyperaemic conjunctiva. A spot size of between 200 and 500 μm was used with the power being titrated between 600 and 1000 mW and exposure time varying between 0.1 and 0.5 ms. The aim was to coagulate, producing a blanching effect rather than carbonating the conjunctival surface. The treatment was well tolerated.

Two months later the lower lid was more cosmetically acceptable (Fig. 2) and the patient was pleased with the result.



Fig. 1. The cosmetically unsatisfactory lid with exuberant and hyperaemic conjunctiva extending too far anteriorly over the lid margin.