



Figure 1 (a) Three pieces of ICG-stained ILM on a wet instrument gauze. (b) Alcian blue-stained ILM specimen. (c) Histological assessment of ILM.

(Figure 1c). We are currently evaluating the procedure to determine whether the modifications change the immunohistochemical properties of the ILM.

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Sir,
Dye-assisted small incision cataract surgery in an eye with cataract and coexisting corneal scarring and epithelial disease

We read with interest the article by Titiyal *et al*¹ on 'Dye-assisted small incision cataract surgery (SICS) in eyes with cataract and coexisting corneal opacity'. The authors describe the use of trypan blue to aid visualisation of the anterior lens capsule in the presence

of corneal opacities. We raise a specific issue that may limit the benefits of this technique.

An 83-year-old Caucasian female with visual acuity of 6/60 consented for left cataract extraction and lens implant. She had a history of left herpes zoster ophthalmicus, with secondary keratouveitis. Her left corneal sensitivity was reduced and she had diffuse stromal scarring. Severe superficial punctate keratitis persisted following maximisation of her topical lubricants. We were advised by the Corneal subspecialist that the cornea was unlikely to improve any further. A guarded visual prognosis was explained to the patient.

Trypan blue 0.06% was employed to enhance visualisation of the capsule; the dye was injected onto the anterior lens capsule under an air bubble. Following wash out of the dye with balanced salt solution, diffuse uptake of the dye by the corneal epithelium was noted. Although the stained anterior capsule was more visible and continuous curvilinear capsulorrhexis facilitated, visualisation of the whole procedure was significantly reduced by the diffuse staining of the corneal epithelium with trypan blue.

Trypan blue selectively stains connective tissue structures in the human eye.² It is commonly used during cataract extraction, to aid capsulorrhexis in mature, traumatic, or white cataracts, when the red reflex is absent.^{3,4} Norn⁵ studied vital staining in cadaveric eyes in the first 46 h after death, showing that Trypan blue staining of the cornea increased progressively, demonstrating that loss of epithelial integrity through cell death resulted in corresponding corneal staining.

In cases where corneal opacification is not extensive enough to justify the use of a corneal triple procedure, the use of trypan blue significantly facilitates cataract extraction. However, caution must be employed in the presence of corneal epithelial breakdown. Efforts should be made to reduce staining of the epithelium with trypan blue. The application of viscoelastic to the surface of the cornea before anterior chamber washout reduces contact of trypan blue with the corneal epithelium. The quantity of dye used can be reduced by instilling one or two drops of the dye directly onto the anterior lens capsule under viscoelastic rather than an air bubble.³

We hope these practical hints will enhance the benefit of the technique described by Titiyal *et al* when performing SICS in patients with coexisting corneal opacities and epithelial disease.

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Sir,
Reply to Dr Gregory and Dr Bibby

We would like to thank Dr Gregory and Dr Bibby for the valuable inputs from their side in order to make the technique of dye-assisted small incision cataract surgery more effective in eyes with corneal opacity.

Persistent severe superficial punctate keratitis in an eye means that the ocular surface is not stable. No surgery is acceptable in such a situation. This eye requires intensive preservative-free lubricant drops and gel and, if needed, an amniotic membrane graft. Cataract surgery should be performed only when the ocular surface becomes stable. However, if the ocular surface does not improve despite all efforts and cataract surgery is very essential for the patient owing to visual handicap or maturity of the cataract as was the present case, care should be taken while injecting the trypan blue dye for staining the anterior capsule. A small amount of dye