

In this case of post-traumatic cataract with subluxation, the dye was noted to enter the vitreous cavity through clinically evident and nonevident areas of zonular loss. Although Trypan blue at a concentration of 0.06% with exposure time of 2 min has not been found to cause retinal toxicity,^{3–5} prolonged dye exposure has been reported to be toxic to the retina. In this case, the dye remained in the vitreous for 4 days thereby resulting in toxicity.

Photochemical damage from prolonged coaxial microscope light exposure could also explain the depressed mfERG foveal responses in our case. However, there were no fundus lesions typical of photochemical damage to support this diagnosis. Nevertheless, its role as a possible potentiating factor is considered.

Hence, the prolonged dye exposure, in addition to the extended surgical time, and hence, coaxial microscope light exposure, could have contributed to the transient retinal toxicity observed in our patient.

In complicated cases such as subluxated cataracts that may benefit from the use of Trypan blue, we recommend the following measures to minimize the risk of Trypan blue-associated toxicity to the retina: (1) Use lower concentrations of dye as previously described,^{6,7} (2) Use dispersive ophthalmic viscoelastic devices (OVD) to seal the anterior chamber angles using the following techniques: (2a) Inject the dye onto the anterior lens surface under Viscoat[®] (2b) the 3-step technique described by Marques *et al.*,⁸ or (2c) Akahoshi's soft shell stain technique.⁹

In conclusion, the use of capsular dyes is relatively safe for use in cataract surgery at low concentrations and brief exposure times. However, for complicated subluxated cataracts, it is necessary to exercise utmost caution to minimize outflow of dye into the vitreous cavity and prevent potential retinal toxicity.

References

- 1 Chowdhury PK, Raj S, Vasavada A. Inadvertent staining of the vitreous with trypan blue. *J Cataract Refract Surg* 2004; **30**: 274–275.
- 2 Gaur A, Kayarkar V. Inadvertent vitreous staining. *J Cataract Refract Surg* 2005; **31**: 649.
- 3 Vote BJ, Russell MK, Joondeph BC. Trypan blue-assisted vitrectomy. *Retina* 2004; **5**(24): 736–738.
- 4 Haritoglou C, Eibl K, Schaumberger M, Mueller AJ, Priglinger S, Alge C *et al.* Functional outcome after trypan blue-assisted vitrectomy for macular pucker: a prospective, randomized, comparative trial. *Am J Ophthalmol* 2004; **138**: 1–5.
- 5 Li K, Wong D, Hiscott P, Stanga P, Groenewald C, McGalliard J. Trypan blue staining of internal limiting membrane and epiretinal membrane during vitrectomy: visual results and histopathological findings. *Br J Ophthalmol* 2003; **87**: 216–219.
- 6 Veckeneer M, van Overdam K, Monzer J, Kobuch K, van Marle W, Spekrijse H *et al.* Ocular toxicity study of trypan blue injected into the vitreous cavity of rabbit eyes. *Graefes Arch Clin Exp Ophthalmol* 2001; **239**: 698–704.
- 7 Yetik H, Devranoglu K, Ozkan S. Determining the lowest trypan blue concentration that satisfactorily stains the anterior capsule. *J Cataract Refract Surg* 2002; **28**: 988–991.
- 8 Marques D, Marques F, Osher R. Three-step technique for staining the anterior lens capsule with indocyanine green or trypan blue. *J Cataract Refract Surg* 2004; **30**: 13–16.
- 9 Akahoshi T. Soft shell stain technique for white cataract. Presented at the ASCRS symposium on Cataract, IOL and Refractive Surgery, Boston. May 2000.

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Sir, Effectiveness of emergency argon laser retinopexy performed by trainee doctors

Dr Ghosh *et al.*¹ reported that a significant proportion of patients (24%) undergoing laser retinopexy required further interventions and the unfamiliarity of the trainees towards laser indirect ophthalmoscope had been attributed as the most important factor for retreatment. However, based on the data cited, we found it difficult to concur with authors' conclusion.

Authors had observed that 24 patients (24%) requiring retreatment and a significant proportion of them (13 patients) had inadequate coverage of the retinal break.¹ We believed that the technique in delivering laser was not the sole factor in determining the adequacy of laser

barrier. The other equally or even more important factor, namely the amount of any subretinal fluid (SRF) associated with the tears during initial presentation, had not been properly addressed in the article. It has been shown that amount of SRF carries significant bearing over the tissue reaction to laser and the overall completeness of the laser barriers.² Hence, the treatment success of laser indirect ophthalmoscope photocoagulation over slit-lamp-delivered laser system in complicated retinal tears relies on not only wider optical localization advantage but also the usual scleral indentation manoeuvre performed during laser delivery, through which the SRF can be displaced to facilitate laser absorption.² A proposed causality between surgeons' inexperience with laser technique and the proportion of retreatment without consideration of the patients factor (nature of the retinal breaks) at the same time is sheer.

Unless further information about the characteristics of the retinal tears treated by trainee ophthalmologists can be rendered, it may be difficult to reach authors' conclusion.

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References

- 1 Ghosh YK, Banerjee S, Tyagi AK. Effectiveness of emergency argon laser retinopexy performed by trainee doctors. *Eye* 2005; **19**: 52–54.
- 2 Bloom SM, Murphy SF, Brier ME. Laser indirect ophthalmoscope photocoagulation and scleral depression for rhegmatogenous retinal detachment. *Retina* 1995; **15**: 224–232.

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Sir,
Reply to Liu *et al*

Thank you for giving me the opportunity to reply to the letter by Liu *et al*. It raises a few questions, which I will clarify keeping in mind that it was a retrospective study:

- (1) The trainees are taught to treat flat retinal tears and tears with a cuff of subretinal fluid (shallow SRF at the edges of tears only) with laser retinopexy.
- (2) Review of our data has shown that of the 24 patients requiring retreatment, only three patients may have been outside the above criteria,
- (3) In our conclusion, we had already pointed out that to improve treatment standards, patient selection and seeking vitreoretinal opinion in difficult cases is important.
- (4) Although the failure of primary treatment for retinal tears is multifactorial, in our paper we have documented that inability to adequately treat/surround the retinal tears with laser retinopexy was the single most important factor in most of the patients requiring retreatment. This inadequacy was mainly due to the inability of the trainees in using indirect laser delivery system. An audit conducted of our trainees did confirm our belief that more supervised training of indirect laser treatment of trainees was essential.

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Sir,
Moraxella as a cause of necrotizing fasciitis of the eyelid

Necrotizing fasciitis has received much interest in the media in recent years, due to its rapid progression, gruesome characteristics, and high mortality rate, estimated at 28% in a recent retrospective study.¹ Haemolytic streptococci, *Staphylococcus aureus*, *Escherichia coli*, *Pseudomonas*, *Enterobacter*, *Klebsiella*,