

Sir,
Use of a mydriatic cocktail with a wick for preoperative mydriasis in cataract surgery: a prospective randomised controlled trial

We read with interest the study by Sengupta *et al.*¹ We carried out a randomised controlled single-blind study of conventional *vs* depot mydriatic drug delivery prior to cataract surgery in 2006, which seems to be missing from their bibliography.²

Contrary to their experience, we found that there was no significant difference between the mydriasis obtained with our depot system and that obtained using conventional drop application. However, we did agree with the conclusion that the use of a depot mydriatic delivery system appeared to be safe, and efficient in terms of both finance and time.

We would also disagree with their hypothesis that the absence of a difference between the two methods in previous studies was perhaps due to the duration of application; our pupillary measurements were taken from between 1 and 4 h after instillation and we still did not find a statistically significant difference between the two groups.

Conflict of interest

The author declares no conflict of interest

References

- 1 Sengupta S, Subramoney K, Srinivasan R, Nongrum B, Agarwal V, Pandian DG *et al.* Use of a mydriatic cocktail with a wick for preoperative mydriasis in cataract surgery: a prospective randomised controlled trial. *Eye (Lond)* 2010; **24**(1): 118–122.
- 2 Dubois V, Wittles N, Lamont M, Madge S, Luck J. Randomised controlled single-blind study of conventional versus depot mydriatic drug delivery prior to cataract surgery. *BMC Ophthalmol* 2006; **6**: 36.

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Sir,
Reply to Luck

We appreciate the interest expressed by Luck¹ in our paper² comparing the efficacy and safety of a mydriatic cocktail regimen delivered with a wick with that of conventional application of eye drops in the preoperative mydriasis before cataract surgery. The authors have reported their own results on a similar study that was very well designed and statistically sound.³ We regret not citing this study in our references. However, contrary to

Table 1 Comparison of mean pupillary diameters in the two studies

Groups compared in the two studies	Mean pupillary diameter (mm)	
	Sengupta <i>et al.</i>	Dubois <i>et al.</i>
Cocktail (depot) group	7.13	8.19
Conventional drops group	5.88	7.96

our results, they found no significant difference between the mydriasis obtained with the depot system (wick soaked in a mydriatic cocktail) and the conventional drop application. This disagreement could possibly be attributed to a few fundamental differences between the two studies.

First, we have included diabetics and pseudoexfoliation (PXF) patients in our study and have equally randomized them into the two arms. These two conditions, which are known to be predisposing factors for poor mydriasis, constituted 15% of our study population. However, Dubois *et al.*³ have excluded patients with these predispositions. We believe that including these conditions makes our study much more applicable to a wider group of patients. Performing a similar study with diabetics and PXF patients alone would reveal whether the cocktail preparation is indeed effective or not.

Second, the exact duration for which the wick was placed in the conjunctival cul-de-sac is not mentioned clearly in the study by Dubois *et al.* We believe that this is a significant issue for the standardization of such a study and the lack of it may bias the results if some patients receive the wick for longer duration than others.

Another difference is that Dubois *et al.* have excluded eyes with dark-coloured irises. Our study has been conducted in an Indian population, wherein all patients have dark irises. There is a clinically significant difference (>1 mm) in the mean pupillary diameters between the two studies in both groups, ie, the mydriatic cocktail group (depot group) and the conventional drops group (Table 1). Most of our patients (>70%) were in the moderate mydriasis group (5.1–8 mm). This suggests that eyes with dark-coloured irises respond differently from lighter-coloured ones. Hence, the two patient groups may not be directly comparable to draw conclusions.

Conflict of interest

The author declares no conflict of interest.

References

- 1 Luck J. Use of a mydriatic cocktail with a wick for preoperative mydriasis in cataract surgery: a prospective randomised controlled trial (Correspondence). *Eye* 2010; **24**: 1407 (this issue).
- 2 Sengupta S, Subramoney K, Srinivasan R, Nongrum B, Agarwal V, Pandian DG *et al.* Use of a mydriatic cocktail with a wick for preoperative mydriasis in cataract surgery: a prospective randomised controlled trial. *Eye* 2010; **24**(1): 118–122.