

Sir,
IOL material and endophthalmitis

I read the article by Kodjikian *et al*¹ with interest. It is important to understand factors that influence the incidence of post-cataract endophthalmitis and sharing audit data is a useful way to achieve this. I wish to question the manner in which the data were analysed and the conclusions drawn.

There were essentially 3 disparate groups: group A, ECCE + PMMA lens; group B, phako + PMMA lens and group C, phako + foldable lens. Group B had a threefold higher incidence of POE than group A and the lack of statistical significance could easily be a type 2 error from the smaller number of patients in group A. Lack of statistical significance should not be interpreted as indicating that the groups are homogeneous and different groups should not be amalgamated to artificially lower *P*-values.

The authors discount the timing of surgery as relevant by comparing the first 4 years (1326 procedures) with the second 6 years (4511) on the basis of the frequency of surgical techniques used during these periods. Comparing six cases in the first 5 years with two in the second half of the study period gives a more accurate picture.

Other factors distinguishing the groups should also be investigated. It seems probable that group B was operated upon at a time when surgeons and theatre staff were learning a new technique. Were operating times longer during the learning period? Did techniques of cleaning and sterilisation alter over this time?

It is clear from this study that the incidence of POE was higher when a PMMA lens was used with phakoemulsification in the early days of this technique. The results obtained with ECCE and PMMA lenses were excellent with an incidence of POE of 0.1% and no patients were found having a final vision below 6/12 because of endophthalmitis. Once the new technique had been mastered and phako with foldable lenses became the norm, the results were at least as good. As the authors state the actual role of IOL material on POE is not established by this retrospective study, but we can be reassured that modern techniques are good.

Reference

- 1 Kodjikian L, Beby F, Rabilloud M, Bruslea D, Halphen I, Fleury J *et al*. Influence of intraocular lens material on the development of acute endophthalmitis after cataract surgery? *Eye* 2008; **22**: 184–193.

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Sir,
Responding letter

We thank Morsman for his comments and interest in our recently published article.¹

Concerning the statistical analysis, we do not understand to which results the author referred to. There are no such comparisons in our article. We made a global comparison of postoperative endophthalmitis (POE) incidences between the five types of material and comparisons between one type of material (PMMA) and each of the other four types.

The choice of the two periods we made may be discussed. The choice of two periods of equal length seems to be a good option because it does not depend on observed data. We have taken another criterion corresponding to the change in surgery techniques.

Concerning the influence of learning curves, we agree with Dr Morsman's comment, more especially as the cataract extraction technique seems to have no influence on the incidence of POE as well in our series as in the literature. Nevertheless, we can note that in the recent ESCRS multicenter prospective study² more experienced surgeons were more likely to be associated with endophthalmitis cases. We believe that this may suggest that the experienced surgeons are more likely to be involved in more complicated cases, including those that result in endophthalmitis. Nonetheless, this proves that reality is probably more complex. Finally, we would like to highlight that our data can exclude the influence of incision site and of wound's size, as among the rigid IOLs group, we demonstrated a significant higher risk of POE with PMMA than with heparinized PMMA.

References

- 1 Kodjikian L, Beby F, Rabilloud M, Bruslea D, Halphen I, Fleury J *et al*. Influence of intraocular lens material on the development of acute endophthalmitis after cataract surgery? *Eye* 2008; **22**: 184–193.
- 2 Prophylaxis of postoperative endophthalmitis following cataract surgery: Results of the ESCRS multicenter study and identification of risk factors. *J Cataract Refract Surg* 2007; **33**: 978–988.

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