

Sir,

### Phacoemulsification cataract surgery and unplanned anterior vitrectomy—it can be bad news

We read with interest the article by Tan and Karwatowski regarding phacoemulsification cataract surgery and unplanned anterior vitrectomy.<sup>1</sup> We agree with these authors as well as others that unplanned anterior vitrectomy is not always bad news since the majority of patients do relatively well postoperatively.<sup>1–4</sup> However, we wish to highlight that in patients who sustain posterior capsule rupture during cataract surgery, vitreous loss requiring anterior vitrectomy is a risk factor for poor visual outcome.<sup>5</sup>

Between July 1995 and December 1998, surgeons in our institution were required to report all intra- and postoperative complications as part of a clinical audit programme. During this period, of the 8230 cataract operations performed, posterior capsule rupture occurred in 155 (1.9%) cases. We analysed 142 of these cases after excluding 13 because of missing data or insufficient follow-up. A total of 90 cases (63.4%) underwent phacoemulsification, while 52 cases (36.6%) underwent extracapsular cataract extraction (ECCE). Vitreous loss requiring anterior vitrectomy occurred in 91 (64.1%) of the 142 eyes with posterior capsule rupture.<sup>5</sup>

We found that of the eyes with posterior capsule rupture, those with vitreous loss requiring anterior vitrectomy were associated with a poorer short-term visual outcome (defined as best-corrected visual acuity (BCVA) worse than 6/12 between 6 weeks and 3 months postoperatively). Of those eyes with vitreous loss, 36.3% had a poor visual outcome compared to only 17.7% of eyes that did not require anterior vitrectomy ( $P=0.02$ ).<sup>5</sup> Excluding eyes with pre-existing ocular pathology that could account for a poor visual outcome, 87% of our patients with posterior capsule rupture had a BCVA of 6/12 or better at 6 weeks to 3 months postoperatively.<sup>5</sup>

In summary, our data suggest that vitreous loss requiring anterior vitrectomy is a risk factor for a poor short-term visual outcome in patients with posterior capsule rupture. However, the majority of these patients do relatively well in the early postoperative period.

### References

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*Eye* (2003) **17**, 679. doi:10.1038/sj.eye.6700432

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### Reply

We appreciate the comments made by Chan and Au Eong.

The methodology and results of their study compare well with ours. Both these studies are audit-based retrospective studies looking at the visual outcome of patients who underwent complicated cataract surgery, with vitreous loss requiring anterior vitrectomy. Our study excluded patients undergoing extracapsular cataract extraction and only included patients having phacoemulsification cataract surgery.

An acceptable visual outcome defined as the best-corrected acuity (BCVA) of 6/12 or better is identical in both studies. Our study found that 86% patients without pre-existing ocular pathology requiring anterior vitrectomy achieved this level of vision. This compares well with Chan and Au Eong's findings of 87%. However, we are unable to comment on the group of patients who had vitreous loss without the need for anterior vitrectomy as our study included patients requiring an anterior vitrectomy.