

<sup>3</sup>Department of Pediatrics, Buddhist Tzu Chi General Hospital, Hualien, Taiwan

<sup>4</sup>Department of Ophthalmology, National Taiwan University Hospital, Hualien, Taiwan

<sup>5</sup>The Department of Medicine, Tzu Chi University, Hualien, Taiwan

<sup>6</sup>Graduate Institute of Medical Sciences, Tzu Chi University, Hualien, Taiwan

Correspondence: Dr Y-C Lee,

Tel: +886 3 8561825 ext. 3253/886 3 8460191:

Fax: +886 3 8577161. E-mail: derrick@url.com.tw

Financial support: none

Proprietary interest statement: none

Eye (2006) 20, 1397–1399. doi:10.1038/sj.eye.6702246; published online 27 January 2006

### Sir,

## Refractive lens exchange combined with pars plana vitrectomy to correct high myopia

Thank you for the interesting discussion concerning our pilot study.

As described none of the patients had retinal problems postoperatively. Vitreous body status was not taken into account as inclusion criteria. However, we can report that nine eyes had a pre-existing posterior vitreous detachment (PVD) preoperatively and five eyes needed a PVD induced during vitrectomy. Actually, inducing a PVD during surgery is a risk factor for retinal tear formation. However, only undetected or improperly managed retinal breaks lead to postoperative retinal detachment. The assumption is that the surgeon is experienced in surgery of the anterior and posterior segment of the eye.

We are familiar with the study of Suzuki et al<sup>2</sup> and Bilinska *et al.*<sup>3</sup> The spread between predicted and actual refractions was  $-0.05 \pm 1.18 \,\mathrm{D}$  in the combined surgery group and  $+0.05\pm1.32\,\mathrm{D}$  in the cataract surgery group. The actual refractive errors in the combined surgery group were found to shift toward myopia when compared with the controls.2 However, the actual refractive errors in the combined surgery group showed nearly no spread between predicted and actual refraction  $(-0.05 \pm 1.18 \,\mathrm{D})$ . In contrast, the cataract surgery group showed a hyperopic shift.

We measured a mean postoperative refraction of  $-0.7 \pm 1.6$  D. As slight myopia was targeted as postoperative result (-0.5 to -1.0 D; using the IOLPC-5formula by Haigis).4 Thus, we found no myopic shift between predicted and actual refractions for our group with combined surgery. We had no group with patients undergoing RLE without PPV for comparison of the shift between combined surgery and cataract surgery alone.

None of the eyes in our study needed a gas tamponade following vitrectomy. We therefore did not expect to find a myopic shift due to gas tamponade, which can press the intraocular lens forward.

### References

- 1 Sjaarda RN, Glaser BM, Thompson JT, Murphy RP, Hanham A. Distribution of iatrogenic retinal breaks in macular hole surgery. Ophthalmology 1995; 102: 1387-1392.
- 2 Suzuki Y, Sakuraba T, Mizutani H, Matsuhashi H, Nakazawa M. Postoperative refractive error after simultaneous vitrectomy and cataract surgery. Ophthalmic Surg Lasers 2000; **31**: 271-275.
- Bilinska E, Nawrocki J, Suprunowicz I, Omulecki W. Refraction changes after cataract extraction with IOL implantation in the eyes with previous performed vitrectomy. Klin Oczna 2002; 104: 344-346.
- Langenbucher A, Haigis W, Seitz B. Difficult lens power calculations. Curr Opin Ophthalmol 2004; 15: 1–9.

S Uhlmann and P Wiedemann

Department of Ophthalmology, University of Leipzig, Liebigstr. 10-14, Leipzig, Sachsen 04103, Germany

Correspondence: P Wiedemann,

Tel: +49/341 9721650; Fax: +49/3419721659.

E-mail: Peter.Wiedemann@medizin.uni-leipzig.de

Eye (2006) **20,** 1399. doi:10.1038/sj.eye.6702248; published online 3 February 2006

# Refractive lens exchange combined with pars plana vitrectomy to correct high myopia

We read with interest the article by Uhlmann and Wiedemann, and congratulate the authors on their