7 Tiecks FP, Lam AM, Matta BF, Strebel F, Douville C, Newell DW. Effects of the Valsalva manoeuvre on cerebral circulation in healthy adults. A transcranial Doppler study. *Stroke* 1995; 26(8): 1386–1392.

HV Srinivas, S Murthy and R Brown

North Staffordshire Royal Infirmary Hartshill Stoke on Trent UK

Correspondence: HV Srinivas 1115, 9th Cross Ashoknagar Banashankari I Stage Bangalore 560 050 India Tel: +91 80 2650 6263 Fax: +91 80 2661 6156 E-mail: srinivashv@excite.com

*Eye* (2005) **19**, 1226–1227. doi:10.1038/sj.eye.6701732; published online 8 October 2004

Sir,

# The proview phosphene tonometer: a clinical evaluation

We enjoyed reading the article by Chew *et al.*<sup>1</sup> There are several issues that we think the authors may like to address.

It would be helpful for the authors to clarify whether they employed the median of several intraocular pressure (IOP) readings for analysis. All measurements of IOP are subject to random errors. Single measurement is suboptimal in reflecting the true IOP. Taking the median of several readings is a standard way to approximate the true IOP values for most tonometry. Comparison of single measurement may introduce more error into the mean difference.

The authors did not describe the visual field status of their subjects. Theoretically, a proper perception of pressure phosphene requires the presence of functioning bipolar cells, rods, and cones in the retina.<sup>2</sup> If the recruited subjects were having advanced glaucoma or significant retinal disease such that there was a significant bipolar cells and visual field loss, the perception of phosphene may prove difficult. However, this does not necessarily negate the potential use of the pressure phosphene tonometer (PPT) in those with early or preperimetric glaucoma. The authors talked of testing for reliability of PPT in their aim of study, and concluded that PPT cannot be a reliable instrument. However, the authors have only tested for accuracy of PPT *vs* Goldmann tonometer (GT), not reliability, as they did not present data such as coefficients of variations, which is a proper way to assess reliability.

It is uncertain whether suboptimal hand–eye coordination, intelligence, and patient understanding will have significant influence on the accuracy in using PPT. The recruited subjects in this study consisted of an elderly population (median age = 73 years), which might have been suboptimal with regard to the factors listed above. The authors may like to give an analysis on the group with younger age, to see whether PPT might be more useful.

### Acknowledgements

Financial or proprietary interest: Nil. Financial support: Nil.

#### References

- 1 Chew GS, Sanderson GF, Molteno AC. The pressure phosphene tonometer—a clinical evaluation. *Eye* 2005; **19**(6): 683–685.
- 2 Brindley GS. The site of electrical excitation of the human eye. *J Physiol* 1955; **127**: 189–200.

#### DYL Leung and DSC Lam

Department of Ophthalmology & Visual Sciences, The Chinese University of Hong Kong, 3/F., Hong Kong Eye Hospital, 147K Argyle Street, Kowloon, Hong Kong, People's Republic of China

Correspondence: DSC Lam, Tel: +852 2762 3157; Fax: +852 2715 9490. E-mail: dennislam@cuhk.edu.hk

*Eye* (2005) **19,** 1227. doi:10.1038/sj.eye.6701735; published online 29 October 2004

## Sir, Reply to DYL Leung and DSC Lam

Thank you for the opportunity to respond to the issues raised in the letter by Leung and Lam and we are grateful to them for their interest and enquiry.

A single reading with both the pressure phosphene tonometer (PPT) and the Goldmann tonometer (GT) was