



GLAUCOMA

Authors' reply to Georgalas and colleagues

Anthony King consultant ophthalmic surgeon and honorary associate professor clinical ophthalmology¹, Augusto Azuara-Blanco professor of clinical ophthalmology and honorary consultant ophthalmologist², Anja Tuulonen professor of ophthalmology³

¹Nottingham University Hospital and University of Nottingham, Nottingham NG7 2UH, UK; ²Centre for Vision and Vascular Science, Queen's University Belfast, Belfast, UK; ³Tays Eye Centre, Tampere University Hospital, Tampere, Finland

We thank Georgalas and colleagues for highlighting an important consideration when evaluating patients for glaucoma.^{1 2}

Pachymetry needs to be considered when evaluating the risk of developing glaucoma in patients with ocular hypertension. It is recognised that Goldmann tonometry can underestimate intraocular pressure (IOP) in people with thin corneas, including those who have had refractive surgery.

However, although it is well known that corneal thickness influences the measurement of IOP, the extent to which a low corneal thickness is responsible for the increased risk of open angle glaucoma is unclear. There is also no consensus on the clinical relevance of the effect of corneal thickness on IOP measurements.³ A systematic review reported considerable heterogeneity in studies reporting central corneal thickness as a probable prognostic factor for progression of open angle glaucoma.⁴

We agree that all people undergoing refractive surgery should have a comprehensive evaluation for ophthalmic abnormalities before surgery and that ideally preoperative measurements of IOP should be taken for future comparison and carefully recorded and saved. The need for optic nerve head and retinal nerve fibre examinations should be confirmed by evidence, considering also cost effectiveness. Because refractive surgery is often performed in comparatively young patients, documentation of the fundus should be in a format that would allow reading and comparison of the images in the future.

Competing interests: None declared.

- Georgalas I, Pagoulatos D, Koutsandrea C, Papaconstantinou D. Don't forget that central corneal thickness affects intraocular pressure. BMJ 2013;347:f4215.
- corneal thickness affects intraocular pressure. *BMJ* 2013;347:f4215.

 King A, Azuara-Blanco A, Tuulonen A. Glaucoma. *BMJ* 2013;346:f3518. (11 June.)
- 3 Burr JM, Botello-Pinzon P, Takwoingi Y, Hernandez R, Vazquez-Montes M, Elders A, et al. Surveillance for ocular hypertension: an evidence synthesis and economic evaluation. Health Technol Assess 2012:16:1-271.
- 4 Ernest PJ, Schouten JS, Beckers HJ, Hendrikse F, Prins MH, Webers CA. An evidence-based review of prognostic factors for glaucomatous visual field progression. Ophthalmology 2013:120:512-9.

Cite this as: BMJ 2013;347:f4216

© BMJ Publishing Group Ltd 2013