davtime supine IOP measurements can estimate peak nocturnal IOP. The correlation between office-hour supine and peak supine nocturnal IOP was higher than office-hour sitting and peak supine nocturnal IOP measurements (r=0.713 vs 0.601). Nakakura et al4 demonstrated that with only 33.8% of peak IOPs occurring during the day, it was difficult to estimate 24-hour IOP fluctuation and maximum 24-hour IOP on the basis of clinic-based measurements. What these studies show is that while office-based IOP measurements correlate reasonably well with mean circadian IOP, a significant amount of peak IOPs can go undetected if nocturnal measurements are not obtained. Twenty-fourhour monitoring, therefore, provides essential information for constituting the circadian pattern of IOP. Once this profile is established, its clinical relevance for glaucoma patients will emerge as an important area for research.

Other limitations of this study are those typically associated with any retrospective chart review. Nocturnal values were available for only 54% of patients, diminishing the sample size and introducing potential selection bias. In contrast to previous studies, this investigation included a mixed cohort of glaucoma subtypes. It is worth pointing out that 25% of overnight patients had congenital, aphakic or chronic narrowangle glaucoma. It is possible that these patients have a different IOP profile from patients with primary open-angle glaucoma.

As long as reduction of IOP remains the most effective treatment of glaucoma, we believe that data on the 24-hour IOP profile will improve glaucoma management. With the advent of newer technologies, ambulatory 24-hour IOP monitoring in real-life conditions could soon be in the realm of the clinician.

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## **REFERENCES**

- Moodie J, Wilde C, Rotchford AP, et al. 24-Hour versus daytime intraocular pressure phasing in the management of patients with treated glaucoma. Br J Ophthalmol 2010;94:999—1002.
- Liu JH, Kripke DF, Hoffman RE, et al.
  Nocturnal elevation of intraocular pressure in

- young adults. Invest Ophthalmol Vis Sci
- Liu JH, Zhang X, Kripke DF, et al. Twenty-four-hour intraocular pressure pattern associated with early glaucomatous changes. *Invest Ophthalmol Vis Sci* 2003;44:1586—90.
- Nakakura S, Nomura Y, Ataka S, et al. Relation between office intraocular pressure and 24-hour intraocular pressure in patients with primary openangle glaucoma treated with a combination of topical antiglaucoma eye drops. J Glaucoma 2007:16:201—4.
- Mosaed S, Liu JH, Weinreb RN. Correlation between office and peak nocturnal intraocular pressures in healthy subjects and glaucoma patients. Am J Ophthalmol 2005;139:320—4.
- Prata TS, De Moraes CG, Kanadani FN, et al. Postureinduced intraocular pressure changes: considerations regarding body position in glaucoma patients. Surv Ophthalmol 2010;55:445—53.
- Mansouri K, Shaarawy T. Continuous intraocular pressure monitoring with a wireless ocular telemetry sensor: initial clinical experience in patients with open angle glaucoma. Br J Ophthalmol Published Online First: 7 January 2011 doi:10.1136/ bjo.2010.192922.

## **RETRACTION**

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