

precision of a method for noninvasive ICP measurement compared with the invasive gold standard CSF pressure measurement.<sup>1</sup>

The authors assume that extracranial OA blood flow is independent of ICP. We disagree. Both adult and pediatric work in the last decade demonstrated the effect and correlation of ICP on distal blood vessels.<sup>2-5</sup> In 2009, we measured central retinal artery and vein blood flow velocities by spectral Doppler imaging in awake, supine children and determined the velocity of blood flow is reduced by elevated ICP.<sup>5</sup> Our method is noninvasive and can be performed without anesthesia on children.

We also have safety concerns. Transcranial spectral Doppler imaging through bone necessitates the use of higher Doppler power than ocular Doppler imaging. The authors' diagram (figure 1) places the transcranial Doppler probe precariously close to the lens, but does not publish powers used. Their method would only be applicable in alert and cooperative adults. In addition, applying prolonged pressure to the globe can reduce central retinal artery blood flow and may result in vision loss.

**Author Response: A. Ragauskas, V. Matijosaitis, R. Zakelis, K. Petrikonis, D. Rastenyte, Kaunas, Lithuania; I. Piper, Glasgow, Scotland; G. Daubaris, Kaunas, Lithuania:** We thank Miller et al. for their interest in the results of our assessment of noninvasive ICP measurement technology. This method is accurate and sensitivity and specificity are much higher compared with other approaches.<sup>1,6,7</sup>

Blood flow in both segments of the OA depends on ICP, ambulatory blood pressure, heart rate, intraocular pressure, intraorbital pressure, and other factors.<sup>1</sup> The benefit of our method is in the equilibration of ICP with  $P_e$ . The balance  $ICP = P_e$  is not dependent on influential factors. OA blood flow velocities could be very different in different

patients<sup>1</sup> but the balance  $ICP = P_e$  does not depend on the OA blood flow velocity values. As a result, our method does not need a patient-specific calibration. All "correlation-based" noninvasive ICP measurement approaches cannot be used for absolute ICP value measurements because they need patient-specific calibration, which is impossible.

Our 2-depth transcranial Doppler technology complies with all safety standards. The maximum value of  $P_e$  is 50 mm Hg and so  $P_e$  is applied to the orbit for just 90 seconds. We diagnosed vision changes after 115 snapshot ICP measurements. Experts have agreed that our technology has no influence on vision impairment.

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### CORRECTION

#### Migraine headache is present in the aura phase: A prospective study

In the article "Migraine headache is present in the aura phase: A prospective study" by J.M. Hansen et al. (*Neurology*<sup>®</sup> 2012;79:2044–2049), there is an error in the abstract. The second sentence of the Results should read "Other migraine symptoms were also frequently reported during the aura: nausea (51%), photophobia (88%), and phonophobia (73%)." The authors regret the error.

Author disclosures are available upon request ([journal@neurology.org](mailto:journal@neurology.org)).

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