

Sir,

**Reply to Abnormalities on the multifocal electroretinogram may precede clinical signs of hydroxychloroquine retinotoxicity**

The article 'Abnormalities on the multifocal electroretinogram may precede clinical signs of hydroxychloroquine retinotoxicity' by Teoh *et al*<sup>1</sup> raises several questions.

1. The authors state that the patient had a normal 24–2 Humphrey VF 6 years after commencing hydroxychloroquine. It is recognized that VF testing that does not emphasize the macula will often miss the early defects of HC toxicity.<sup>2</sup> Thus, a paracentral scotoma may well have existed in 1999 had a 10–2 VF programme been used rather than a 24–2. That is, readers should not take the case presentation of Teoh to suggest that toxicity was not evident 6 years after commencing HC. Rather, the point to drive home is that the test ordered (24–2 VF) was the wrong test.
2. The authors' calculation of the patient's HC dosage is suspicious. They state that she received an approximate daily dose of 3.91 mg/kg. My calculation differs. We are told she received 3039 g of HC over 11 years. Thus, she received on average  $3039/11 = 276.3$  g HC yearly. Assuming that she took a daily dose of HC, the average daily dose would have been  $276.3 \text{ g}/365 \text{ days} = 757 \text{ mg/day}$ . Her height is listed at 1.50 m or 59 inches, for which top normal body weight is 119 lbs or 54.1 kg.<sup>3</sup> Thus, her daily HC dose, on average, was  $757 \text{ mg/day}/54.1 \text{ kg} = 13.99 \text{ mg/kg/day}$ , massively above the recommended upper limit of 6.5 mg/kg/day.

The main public health issue with regard to HC use is not the need for a more sensitive test to detect retinal toxicity, such as a multifocal ERG. Rather, it is greater awareness of proper dosing guidelines for the drug based on top normal body weight, which is in turn a function of height. The 10–2 VF is an appropriate and widely available screening test of adequate sensitivity to serve the purpose. Simple tables of appropriate dosages of HC have been published and can be kept in clinical lanes where patients taking are screened.

## References

- 1 Teoh SC, Lim J, Koh A, Lim T, Fu E. Abnormalities on the multifocal electroretinogram may precede clinical signs of hydroxychloroquine retino-toxicity. *Eye* 2006; **20**: 129–132.

- 2 Browning DJ. Hydroxychloroquine and chloroquine retinopathy: screening for drug toxicity. *Am J Ophthalmol* 2002; **133**: 649–656.
- 3 Browning DJ. Reply to defining ideal body weight. *Am J Ophthalmol* 2002; **134**: 935–936.

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**Choroidal folds secondary to parasellar meningioma**

Choroidal folds can develop in association with any intra- or extraocular process that induces sufficient compressive stress within the choroid, Bruch's membrane, and retina to force these tissues to buckle. In other words, any deviation from a spherical shape (that represents the least surface area shape) results in increased surface area that is compensated for by folding of tissues. Choroidal folds can be secondary to hypotony, posterior scleritis, ocular/orbital mass, macular degeneration, scleral buckle, hyperopia, and papilledema. In some cases, no clear aetiology can be determined (idiopathic). Herein, we describe a case of parasellar meningioma, with extension into orbital apex and optic nerve, in a patient presenting with ipsilateral choroidal folds.

## Case report

A 51-year-old white male, without significant past medical or ocular history, complained of decreased visual acuity left eye of 3 months duration. Visual acuity was 20/20 and 20/30 in right and left eyes, respectively. Pupils were equally reactive to light, without an afferent pupillary defect. Anterior segment examination was unremarkable and intraocular