Re: De Moraes et al.: 24-2 Visual fields miss central defects shown on 10-2 tests in glaucoma suspects, ocular hypertensives, and early glaucoma (Ophthalmology. 2017;124:1449-1456)

TO THE EDITOR: We read with great interest the recent cross-sectional prospective study by De Moraes et al1 describing the prevalence of visual field (VF) defects in glaucomatous eyes, glaucoma suspects, and ocular hypertensives with 24-2 and 10-2 VFs. Although the findings seemed to be very promising and could potentially change our VF testing strategy for glaucoma patients, a closer look leaves a number of unanswered questions and areas of concern that may be beneficial to explain to readers of the article.

First, the exact sequence of the VFs tests needs to be clarified. The authors specified that only 24-2 and 10-2 VFs performed on the same day were analyzed for this study; however, a fatigue effect could manifest if both VFs were performed on the same date, which may significantly influence VFs sensitivity, reliability, and performance, especially if the VFs were performed in succession.2,3 We are interested in receiving more information on whether there was a break between VFs, which test (10-2 or 24-2) was performed first, and whether the order of tests was randomly allocated. In addition, a significant difference in the time taken to perform both tests among the various patients could also affect the reliability of VFs and could potentially lead to bias in the interpretation of the study results.

Furthermore, the authors stated that ≥2 reliable standard automated perimetry Humphrey 24-2 VFs at baseline were required, defined as <33% false positives, false negatives, and fixation losses. However, these reliability criteria may be too lenient in light of current manufacturer recommendations for the Swedish interactive threshold algorithm was used in this study, which suggests a cutoff of <15% false positives and <20% fixation losses (or, in alternative at least <20% false positives) to define VFs as “reliable.”4,5 Moreover, VFs are characterized by a learning curve, which can be influenced significantly by the interval between the 2 baseline reliable VFs performed and the VF for evaluation in the study. We would be interested to know how much time before the beginning of this cross-sectional prospective study were the 2 reliable standard automated perimetry 24-2 VFs performed.

We commend the author’s frank acknowledgement in the discussion of the limitations of the present study but seek clarification of the points we have raised.

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References