

How Does Glaucoma Look?: Patient Perception of Visual Field Loss

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Abstract

OBJECTIVE: To explore patient perception of vision loss in glaucoma and, specifically, to test the hypothesis that patients do not recognize their impairment as a black tunnel effect or as black patches in their field of view.

DESIGN: Clinic-based cross-sectional study.

PARTICIPANTS: Fifty patients (age range, 52-82 years) with visual acuity better than 20/30 and with a range of glaucomatous visual field (VF) defects in both eyes, excluding those with very advanced disease (perimetrically blind).

METHODS: Participants underwent monocular VF testing in both eyes using a Humphrey Field Analyzer (HFA; Carl Zeiss Meditec, Dublin, CA; 24-2 Swedish interactive threshold algorithm standard tests) and other tests of visual function. Participants took part in a recorded interview during which they were asked if they were aware of their VF loss; if so, they were encouraged to describe it in their own words. Participants were shown 6 images modified in a variety of ways on a computer monitor and were asked to select the image that most closely represented their perception of their VF loss.

MAIN OUTCOME MEASURES: Forced choice of an image best representing glaucomatous vision impairment.

RESULTS: Participants had a range of VF defect severity: average HFA mean deviation was -8.7 dB (standard deviation \pm SD, 5.8 dB) and -10.5 dB (SD, 7.1 dB) in the right and left eyes, respectively. Thirteen patients (26%; 95% confidence interval \pm CI, 15%-40%) reported being completely unaware of their vision loss. None of the patients chose the images with a distinct black tunnel effect or black patches. Only 2 patients (4%; 95% CI, 0%-14%) chose the image with a tunnel effect with blurred edges. An image depicting blurred patches and another with missing patches was chosen by 54% (95% CI, 39%-68%) and 16% (95% CI, 7%-29%) of the patients, respectively. Content analysis of the transcripts from the recorded interviews indicated a frequent use of descriptors of visual symptoms associated with reported blur and missing features.

CONCLUSIONS: Patients with glaucoma do not perceive their vision loss as a black tunnel effect or as black patches masking their field of view. These findings are important in the context of depicting the effects of glaucomatous vision loss and raising awareness for glaucoma detection.

Ophthalmology. 2013 Feb 12. pii: S0161-6420(12) 01163-3. doi: 10.1016/j.ophtha.2012.11.043. ahead of

print

PMID: 23415421

<http://www.ncbi.nlm.nih.gov/pubmed/23415421>