

## Association Between Head-Mounted VF Results and Parkinson Disease Duration and Severity

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**Purpose:** To correlate visual field (VF) results in patients with Parkinson disease (PD) to disease duration and severity.

**Methods:** PD patients took a virtual reality VF exam (VRVF, Virtual Vision) using size V stimuli with resulting mean threshold sensitivity and foveal threshold. Duration from PD diagnosis (DurDx) and first motor symptoms (DurSx), and Movement Disorder Society-Unified Parkinson's Disease Rating Scale Part III scores on (SevON) and off (SevOFF) medication were collected.

**Results:** From September 2021 to February 2022, reliable VRVF exams were obtained for 24 of 35 eyes (68.6%). Greater DurDx and DurSx significantly correlated with lower mean sensitivity and approached significance with lower foveal threshold. Greater SevON significantly correlated with lower mean sensitivity, but greater SevOFF correlated with higher mean sensitivity. Disease severity did not correlate with foveal threshold.

**Conclusion:** Greater PD duration is associated with lower mean sensitivity on VRVF exams, though relationship with PD severity is unclear. Prospective longitudinal studies would be valuable to demonstrate use of VF indices as PD biomarkers.