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Service (sector) GlaucomaNº CEP

### **Reproducibility of Confocal Scanning Laser Ophthalmoscopy and Scanning Laser Polarimetry Measurements in Glaucomatous Patients**

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**Purpose:** To evaluate the reproducibility of optic nerve head and retinal nerve fiber layer thickness measurements using confocal scanning laser ophthalmoscopy (HRT-II) and scanning laser polarimetry (GDx-VCC) in glaucomatous patients. **Methods:** Twenty-three patients (23 eyes) were prospectively enrolled in this study. Patients were included if they had glaucoma, no significant media opacity or other ocular disease, and intraocular pressure equal to or lower than 16 mmHg. Each patient underwent a series of 3 exams, with approximately 30-minute intervals, using HRT-II and GDx-VCC. Measurements of the optic nerve head and retinal nerve fiber layer thickness provided by these two devices were recorded and analyzed. **Results:** The HRT parameters that demonstrated the lowest within-subject standard deviations were mean cup depth (0.0167 mm), cup shape measure (0.0255), and linear cup/disk ratio (0.0267). The GDx-VCC parameters that demonstrated the lowest within-subject standard deviations were TSNIT average (1.797  $\mu\text{m}$ ), inferior average (2.118  $\mu\text{m}$ ), and superior average (2.526  $\mu\text{m}$ ). **Conclusions:** HRT-II and GDx-VCC provide reproducible measurements of the optic nerve head and retinal nerve fiber layer thickness in glaucomatous patients.