(X) R1 ( ) R2 ( ) R3 ( ) PG0 ( ) PG1 ( ) Estagiário ( ) Tecnólogo ( )
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Service (sector) Glaucoma Nº CEP

**Assessment of retinal nerve fiber layer thickness in non-glaucomatous and glaucomatous patients with high myopia**

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Purpose: To compare the retinal nerve fiber layer (RNFL) thickness in highly myopic patients with and without glaucoma using the optical coherence tomography (Stratus OCT) and scanning laser polarimetry (GDx-VCC). Material and Methods: A total of 20 patients (32 eyes) with high myopia and no glaucomatous damage (control group) and 9 patients (17 eyes) with high myopia and primary open-angle glaucoma (glaucoma group) were enrolled in this prospective study. The inclusion criteria were age > 40 years, myopia of 5.00 SD or higher, ocular axial length > 25 mm, best-corrected visual acuity of better than 20/400, absence of media opacities and significant ocular diseases excepting glaucoma and myopic retinopathy. All patients underwent OCT and GDx examination of the RNFL thickness. Results: No statistically significant differences of axial length, spherical equivalent and RNFL average thickness measured by OCT and GDx were found between the two groups (P > 0.05). No RNFL parameters provided by either OCT or GDx could help differentiate the two groups (P > 0.05). The RNFL average thickness measured by GDx were thicker than OCT measurement (mean difference: 30.94 μm; 95% CI: 10.73 μm to 51.14 μm; P= 0.004).

Conclusions: The analysis of RNFL by OCT and GDX does not adequately discriminate glaucomatous and non-glaucomatous patients with high myopia. These exams should not be considered for glaucoma diagnosis in high myopia