

The effect of special yellow filters use on standard automated perimeter of normal individuals, patients with pre perimetric glaucoma and glaucoma patients

Introduction: Glaucoma is the 2nd most common cause of blindness and the 1st most irreversible cause worldwide. Early diagnosis of glaucoma is a factor in the management and treatment of glaucoma, as in chronic open-angle glaucoma there is no underlying symptomatology and the diagnosis is often made randomly, in a measurement of intraocular pressure. The examination of visual fields (white-on-white) checks the difference in light sensitivity through the automated standard perimeter and is mainly controlled through three parameters: the mean deviation (MD), the pattern standard deviation (PSD) and the visual field index field (VFI). Examination of the visual fields, in addition to monitoring white-on-white glaucoma patients, can also be used in their early diagnosis, a blue target on a yellow background (blue-on-yellow).

Yellow filter lenses are based on blocking blue wavelength radiation by improving contrast sensitivity, which is a psychophysical examination of the quality of vision, determines the threshold level between the visible and the invisible, and has also been shown to decreased contrast sensitivity is a prognostic indicator in the detection of glaucoma.

Purpose: The comparison of visual fields of automated standard perimeter white-on-white with yellow-on-yellow.

Materials and Methods : The research will be a prospective study and will include controls, patients with pre-perimeter glaucoma and glaucoma patients who will undergo a complete ophthalmological examination, which will include: Historical examination, biomicroscopy in the slit lamp, best corrective visual acuity BCVA (Black on White), right (OD) and left eye (OS), color perception with Ishihara pseudochromatic plates, contrast sensitivity examination with Pelli - Robson optotype, automated standard perimeter 24 - 2 , OCT RNFL - GCC, AS OCT (Gonioscopy - CCT), Goldman tonometry. For the exam (yellow-on-yellow) a yellow filter will be used in place of the corrective lenses.

Results : They will be presented in the aggregate and a statistical analysis will be performed on the main evaluation indicators of the visual fields : MD, PSD, VFI.

Conclusions: An analysis of the results will be performed and the effect of the yellow filters on the visual fields of controls, patients with pre perimetric glaucoma and glaucoma patients will be presented.

Keywords: Special yellow filters, Standard automated perimetry, glaucoma