

VISUAL FUNCTION CHANGES AFTER INTRAOCULAR PRESSURE

REDUCTION USING ANTIGLAUCOMA MEDICATIONS: A RANDOMIZED
CONTROLLED TRIAL

Background/Aims: To evaluate the correlation between intraocular pressure (IOP) reduction and visual function changes in primary open-angle glaucoma (POAG) patients after using antiglaucoma medications. **Methods:** Fifty-four glaucomatous patients (54 eyes) without use of antiglaucoma medications were enrolled in this study. After inclusion, the patients randomly received one of the three following medications: timolol maleate 0,5% , brimonidine tartrate 0,2% or prostaglandin analogs 0,004% in one randomly selected eye. The patients underwent Goldmann applanation tonometry, visual acuity test, contrast sensitivity test (CS), visual quality perception test (visual analogue scale) and standard automated perimetry in a random sequence before and after 4 weeks of glaucoma treatment onset. **Results:** After the 4-week treatment, all three drugs reduced IOP effectively. There were statistically significant changes in SAP Mean Deviation, visual quality perception and CS in higher frequencies (12 and 18 cycles/degree). No significant correlations between IOP reduction and visual function changes were found. **Conclusions:** These data suggests that patient's visual subjective analysis, visual field MD and contrast sensitivity at higher frequencies improves after the onset of glaucoma therapy. However, its association with IOP changes deserves further studies to be confirmed.