

## **IS IT POSSIBLE TO SLOW DOWN OPTIC NERVE ATROPHY CAUSED BY OPTIC NERVE DRUSEN?**

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**Purpose:** The aim of the study was to compare a function of the optic nerve in the eyes with lowered intraocular pressure and fellow eyes in patients with optic nerve drusen. **Patients and methods:** The study included 34 patients (21 women and 13 men) with diagnosed bilateral optic nerve drusen without any other ocular disease. The age of patients was from 18 to 68 years, mean age was 41,6 years. All patients underwent ophthalmologic examination, pattern electroretinography (PERG), pattern visual evoked potentials (PVEP) and optical coherence tomography (OCT) to measure retinal nerve fiber layer thickness (RNFL). The eye with more advanced optic neuropathy was selected for treatment with carbonic anhydrase inhibitor (brinzolamide), the fellow eye served as a control group. The study period was 12 months. Statistical analysis was performed using an U Mann-Whitney test and a Wilcoxon test. **Results:** In the group of eyes with lowered intraocular pressure statistically significant increase of amplitude N95 of PERG ( $p=0,0047$ ) and RNFL thickness stabilization were obtained. In the control group statistically significant decrease of RNFL thickness ( $0,0017$ ) was found. There were no statistically significant differences in PVEP in both groups. **Conclusions:** Lowering intraocular pressure in eyes with optic nerve drusen lead to a better function of retinal ganglion cells and slowing optic neuropathy progression. PERG should be performed in patients with optic nerve drusen as it is a sensitive test able to monitor the optic neuropathy progression.