

**Effect of Phenytoin on the Ganglion Cell Layer in Patients
with Optic Neuritis**

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Study Protocol

Optic neuritis is diagnosed based on the sudden loss of unilateral vision in a person aged 18- 60 with painful eye movements and colored vision impairment, as well as pupil defects and associated visual impairment (confirmed by neuro-ophthalmologist). Patients entered It should be kept alert to another eye plan. There is also no primary pathology in Oct. The control group was selected as cohort and dual blind randomized. 108 patients referred to Farabi Hospital during the years 2016 to 2018 were diagnosed with optic neuritis in a one-to-one treatment with 300 mg daily for Phenytoin and placebo at the first 14 days after Detect Optic Neuritis. All patients are treated for corticosteroids for an acute phase with a 1 g daily intravenous methylprednisolone daily for 3-5 days. EXCLUSION CRITERIA Previous history of optic neuritis in the contralateral eye-recurrence in the same eye-Eye disease that affects the study at the same time - Clinical hepatitis or proven laboratory tests Disorders of the kidney or heart function (such as disturbed electrocardiogram) - Contraindication of Phenytoin intake (such as pregnancy) Or previous sensitivity to Phenytoin) - Using sodium or calcium channel blockers over two weeks before starting Phenytoin and receiving other immunosuppressive drugs during the 2 months prior to treatment - IOP greater than 21 - Refractive error greater than 5 diopters The initial examination consists of the best corrected visual acuity , applanation tonometry, slit examination and funduscopy. Best corrected visual acuity is converted to logMAR (logarithms of minimum angle of resolution) by statistical calculation. In all patients, the visual field is performed by the Swedish interactive thresholding algorithm standard 24-2 perimeter (Carl Zeiss mediated, Dublin, California). The false positives are less than 13%, the false negative are less than 30% acceptable. The light sensitivity in the visual field is measured by the decibel (db). All patients have Optical Coherence Tomography. The thickness of RNFL and MACULA and GCIPL are evaluated in 8 sectors:these stages in the first and sixth month after the onset of the disease It repeats itself. Then, the relationship of values obtained in macular thicknesses and GCIPLs with VF is compared at different times. Data are analyzed by SPSS version 20 software.