Purpose: The broad spectrum of ophthalmic complications induced by cytotoxic chemotherapy includes reversible and irreversible acute and chronic disorders. In this study, we aimed to evaluate retinal and optic nerve functions in patients treated with Cisplatin and Paclitaxel cytotoxic chemotherapy.

Materials and Methods: Eight patients who were planned to treat with Cisplatin and Paclitaxel for lung cancer were enrolled in this study. Patients with any ocular diseases such as glaucoma, cataract, uveitis and retinopathy were excluded from the study. Before systemic administration of chemotherapeutics, all patients underwent a complete ophthalmologic examination including visual field assessment with automated threshold perimetry and frequency doubling perimetry, and retinal nerve fiber layer (RNLF) thickness measurement with optic coherence tomography. All patients received three cures of chemotherapy with monthly intervals. Ocular examinations were performed following cures and six weeks after cessation of the treatment.

Results: Six male and 2 female patients had a mean age of 53.6 years. Findings include visual acuity, intraocular pressure, RNLF thickness, mean and standard deviation parameters in visual fields showed no significant change after cytotoxic chemotherapy. Color vision test of a patient revealed significant decrease in one eye following second cure of the chemotherapy. The decreased color vision of the patient remained same even six weeks after cessation of the treatment.

Discussion: Chemotherapeutics may cause neurotoxicity. Ophthalmic complications induced by chemotherapeutics may be underestimated and neglected because of the priority given to other life threatening conditions. Oncologists and ophthalmologists must be aware of potential ophthalmic complications during cytotoxic chemotherapies.