

# INTERPRETATION OF NATIONAL CLINICAL AND EPIDEMIOLOGICAL GLAUCOMA STUDIES FROM REAL CLINICAL PRACTICE

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## SIDE EFFECTS OF INTRAOCULAR TUMORS AND THE DEVELOPMENT OF SECONDARY GLAUCOMA

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**Background.** Ocular tumors or metastases of systemic tumors in the eye can lead to increased IOP and irreversible alteration of ocular structures through several pathogenetic pathways. IOP elevation is proportional to tumor type, location, and size. Additionally, IOP will increase depending on the degree of inflammation, necrosis, or bleeding, if any. The prevalence of ocular metastases in systemic tumors is about 4%. The most common sources are breast, lung and kidney cancer.

Management of intraocular tumors with secondary glaucoma consists mainly in the elimination of viable tumor cells. IOP control can be performed conservatively or surgically. The treatment of secondary glaucoma begins with topical eye drops which decrease aqueous humor production. In case of inefficiency, systemic therapy with oral hypotensive drugs is started. Prostaglandin analogues should be avoided, as they increase the amount of melanin in melanocytes and worsen the prognosis of melanoma. In the case of systemic tumors with ocular metastases, chemotherapy may have a favorable effect. If the conservative treatment is ineffective, the surgical one is used. En-block resections of the iris and ciliary body are performed. Transscleral cyclophotocoagulation or cryotherapy are less invasive methods of IOP control. Glaucoma surgery (incisional, including filtration procedures and drainage devices) is generally contraindicated due to the increased risk of spreading tumor cells. Among the effective methods are plaque brachytherapy, external beam radiation, chemotherapy. In cases with massive uveal melanoma, retinoblastoma, pronounced eye pain and minimal visual potential, enucleation of the eyeball is used.

**Conclusions.** The patient's prognosis depends on the type of tumor, the involvement of the eye structures and the treatment applied. The primary goal of treatment is to control the tumor and then the IOP.