

ANTI-VEGF TREATMENT FOR IRIS METASTASIS

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Purpose: To emphasize the efficacy of anti-VEGF treatment in iris metastases.

Case 1: A 65-year-old woman presented with an iris mass in her left eye. The patient had already undergone a radical mastectomy coupled with radiotherapy, and chemotherapy. At presentation, her visual acuity was 20/20 in both eyes. Intraocular pressures were measured to be 16 mmHg in both eyes with applanation tonometry. The iris mass was brown-gray with well-defined borders and located temporally close to iris root. Its size was measured to be 4.3 mm x 2.5 mm. Tumor surface was covered with a well-developed vascular network. Slit-lamp and fundus examinations of both eyes did not reveal any other pathology. Fluorescein angiography confirmed the presence of a well-developed vascular tumor network, which leaked in the late phases of the angiogram. 1.25 mg of bevacizumab was injected intravitreally five times over a period of eight months. First, three injections were given one month apart, followed by two more injections three months apart. The tumor shrunk to one third of its original size after the first bevacizumab injection. Reduction in the size of the tumor continued thereafter along with regression of the tumor vasculature and a decrease in leakage. Three months after the fourth injection (at eight months), the tumor had regressed to an almost indiscernible size.

Case 2: A 52-year-old Caucasian woman with a known history of biliary tract carcinoma presented with metastatic tumor in the left iris. At presentation, her intraocular pressure was elevated to 34 mmHg in her left eye with a decrease in her visual acuity to 20/50 level. The tumor was occupying nasal half of the iris with 160 degrees closure of the angle. Several foci of small tumoral masses were scattered on the iris and in the anterior chamber angle. Her intraocular pressure remained high despite full medical therapy with dorzolamide, timolol, brimonidine and oral acetazolamide. Due to the vascularized

nature of the tumor, three repeated injections of bevacizumab (1.25 mg/50 ml) one month apart was done. Three repeated injections of bevacizumab resulted in shrinkage of the tumoral mass and disappearance of the scattered tumoral cell clumps from the iris and the angle. Complete tumor regression was obtained at the end of the third bevacizumab injection. Patient's vision improved to 20/20 and intraocular pressure remained within normal limits only with topical dorzolamide/timolol. Gonioscopy showed nasal part of the anterior chamber angle was remained close by peripheral anterior synechiae.

Conclusion: Treatment methods used for the treatment of metastatic iris tumors have serious systemic and local side effects and the effect of systemic chemotherapy on ocular compartment is also limited. Anti-vascular endothelial growth factor (anti-VEGF) treatment with intravitreal bevacizumab can restore sight and achieve intraocular pressure control in metastatic iris tumors and can prevent enucleation of these eyes. In conclusion, the case presented herein demonstrates that intravitreal bevacizumab can be an option for local treatment of iris metastases. Intravitreal anti-VEGFs successfully regulate these vascular metastatic tumors and provide a successful and cost effective alternative to conventional treatment methods.

Biography

Rukiye Aydin Medipol University Hospital Ophthalmology Specialist Op. went to Columbia University within the scope of 2219 TUBITAK Overseas Doctoral Research Scholarship. Aydin will conduct research at the Edward S. Harkness Eye Institute at Columbia University Hospital in order to prevent the development of juvenile retinoschisis, which starts at an early age and cause severe vision loss, and to explore its treatment. Aydin aims to prevent vision loss by avoiding the disease that has no definite treatment with the study. The main areas of interest and treatment are: Vision Disorders and Lens Diseases.

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