Regression of Choroidal Metastasis Secondary to Pancreatic Adenocarcinoma from a Combination of Systemic Chemotherapy and Novel Adjuvant Use of Intravitreal Procedural Therapy with Aflibercept

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Objective: To study the effects of anti-VEGF (Aflibercept) surgical therapy on choroidal metastasis from pancreatic adenocarcinoma

Materials and Methods: Case Study

Case: A 63-year-old African American male presented with a vision of 20/40 (right eye) and 20/70 (left eye). Undilated exam was within normal limits. Bilateral laser peripheral iridotomy surgeries were performed for narrow anterior chambers, but the chambers did not deepen. Six weeks later, the patient returned with dramatically worse vision. During this six-week interval, the patient was diagnosed with widely metastatic pancreatic cancer. He developed large choroidal masses with exudative retinal detachments in both eyes. Optical Coherence Tomography imaging showed extensive choroidal thickening with diffuse subretinal fluid. The patient underwent serial intravitreal aflibercept surgical procedures to both eyes in conjunction with systemic chemotherapy. He continued this regimen for three months with total regression of his choroidal tumors and exudative retinal detachments. There are a few case reports of choroidal metastatic pancreatic cancer in the literature, all of which have been treated with chemotherapy alone and/or with local brachytherapy or external beam radiotherapy. However, intravitreal anti-VEGF surgical therapy, which has been used for choroidal metastases from other primary malignancies, has never been used for choroidal metastasis from pancreatic adenocarcinoma.

Conclusion: We describe a more conservative and safer alternative with anti-VEGF intravitreal surgical therapy. This is especially pertinent for aggressive malignancies such as pancreatic cancer, where safe palliative ocular care to decrease tumor burden within the eye without causing the extensive side effects from local radiation therapy becomes increasingly important.