A 75-year-old man had a 1-year history of cutaneous melanoma and was undergoing immunotherapy with an inhibitor of programmed cell death protein 1. Although his systemic disease was in remission, the patient presented with vitreous opacities in his left eye. During follow-up, he developed neovascular glaucoma (intraocular pressure, 27 mm Hg) with iris and angle neovascularization. An intracameral injection of repackaged bevacizumab, 1.25 mg per 0.05 mL (Avastin [Genentech]), was performed. After 5 days, the iris neovascularization regressed, but amorphous material and atypical cells accumulated in the anterior chamber. Unfortunately, the patient also developed a rhegmatogenous retinal detachment (secondary to a previous biopsy procedure), and after 3 months, the eye had to be enucleated. At the last follow-up, 23 months after iris neovascularization, the patient remains alive without melanoma recurrence, undergoing regular oncologic monitoring.