Use of intravitreal ranibizumab to treat neovascular glaucoma in a patient with Familial amyloidosis transthyretin V30M related: case report

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Introduction

Familial amyloidosis TTR V30M is an autosomal dominant inherited disorder caused by an extracellular amyloid deposition in nerves, solid organs and in the eye. Many ocular manifestations were reported such as abnormal conjunctival vessels, keratoconjunctivitis sicca, amyloid deposits in pupillary border, glaucoma, deposition of amyloid at the anterior capsula of the lens, vitreous opacities and retinal amyloid angiopathy.

Purpose

To report the use of intravitreal ranibizumab followed by laser photocoagulation in a patient with familial amyloidosis with neovascular glaucoma.

Case report

A 52-year-old patient with familial amyloidotic polyneuropathy associated with TTR V30M mutation that underwent a liver transplantation went to the ophthalmology emergency department with left eye pain and decreased visual acuity. At the examination she presented with rubeosis iridis and neovascular glaucoma in the left eye as well as other ocular manifestations of the disease such as keratitis and opacification of the anterior capsula of the lens.

A complete ocular examination was performed and best-corrected visual acuity was assessed and was 0.05 (Snellen) and intraocular pressure was 42 mmHg (aplanation tonometry). A Fluorescein and indocyanine green angiography were performed and the first one showed vascular occlusion in the retinal periphery, microaneurysms and neovascularization (Fig. 2). Indocyanine green angiography showed hyperfluorescent spots alongside the choroidal vasculature (Fig. 3).

Intravitreal ranibizumab was injected, and 48 hours after the procedure, there was a regression of the clinical status. Laser photocoagulation was performed as well.

The best-corrected visual acuity after 2 years of follow-up had improved to 0.4 (Snellen), the intraocular pressure was lower than 18 mmHg (under topical treatment with timolol) and there were no visible new vessels in the iris or the retina.

The patient died a few years later of early dementia due to cerebral amyloid angiopathy; maintaining a stable ophthalmologic situation.

Conclusion

The use of intravitreal ranibizumab can be a potential treatment for amyloid angiopathy and neovascular glaucoma in addition to peripheral photocoagulation.