An Extreme Case of Rubeosis Iridis

Um Caso Extremo de Rubeose Iridiana

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A 78-year-old man with history of hypertension and atrial fibrillation presented to our ophthalmology emergency ward with complaints of sudden decrease of visual acuity in his right eye (OD) that started four months prior. Examination revealed a relative afferent pupillary defect of OD, and the best-corrected visual acuity was counting fingers (with field constriction) in the OD and 20/30 in the left eye. Intraocular pressure was 17 mmHg in the OD. Fundoscopy of OD revealed a profoundly excavated optic disc (c/d 0.9), multiple dot/blot and flame-shaped hemorrhages throughout all four quadrants of the retina, tortuosity and dilatation of central retinal vein branches, and macular edema. The patient was diagnosed with ischemic central retinal vein occlusion and was promptly treated with anti-vascular endothelial growth factor (VEGF) intravitreal injections and pan-retinal photocoagulation (PRP). Despite close follow-up and intensive treatment, the patient developed neovascular glaucoma. On biomicroscopy, very dense iris neovascularization covering most iris stroma could be observed, with neovessels hovering in the anterior chamber (Fig. 1). In spite of this, the patient did not present pain complaints and is currently controlled under topical antiglaucomatous drugs and atropine.

Neovascular glaucoma is a severe complication of diseases that course with tissue ischemia (i.e., retinal vein occlusion and proliferative diabetic retinopathy).[1] In these diseases, tissue hypoxia induces upregulation of VEGF that, upon reaching the anterior chamber, leads to iris and angle neovascularization, ultimately culminating in neovascular glaucoma.[1,2] Although anti-VEGF and PRP are the most common treatments employed for preventing neovascularization, an individualized approach to patients is warranted.[3]

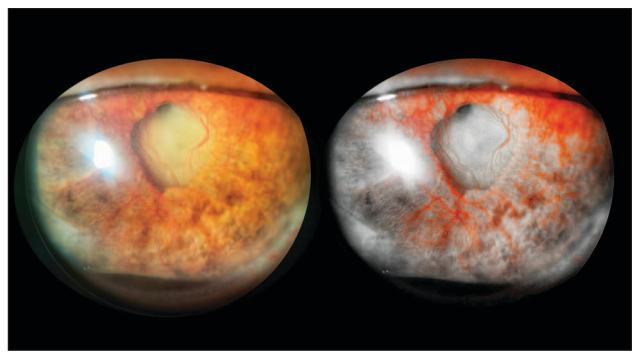

Figure 1. Left - Dense rubeosis iridis with neovessels hovering in the anterior chamber. Right - High-contrast photography highlighting the neovascular network.

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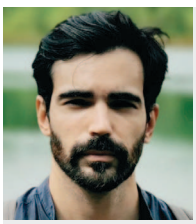

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