Cilioretinal Artery Occlusion

Category(ies): Retina/Vitreous

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A 67-year-old man with history of type 2 diabetes mellitus, hyperlipidemia, and uncontrolled hypertension presented with a central visual field deficit of sudden onset in his right eye. Visual acuity on presentation was 20/25 in both eyes, and funduscopic examination revealed an isolated cilioretinal artery occlusion (CLRAO) in his right eye (Figure 1). Work-up revealed significant right internal carotid artery stenosis (>50%). A right carotid endarterectomy was performed, and vascular risk factors were optimized. Visual acuity was stable at 20/25 one month after presentation.

CLRAO accounts for ~5-7% of retinal artery occlusions and is usually associated with a central retinal vein occlusion (CRVO) or anterior ischemic optic neuropathy (AION). [1-3] Less commonly, CLRAOs may occur as an isolated phenomenon as in this case. Isolated CLRAOs typically have a better visual prognosis than those associated with a CRVO or AION with 90% of patients achieving a visual acuity of 20/40 or better. [3]

Figure 1. Retinal whitening extends from the superotemporal optic nerve through the macula superior to the fovea. Multiple small emboli are seen within the cilioretinal artery.

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Figure 2. Fluorescein angiography of the right eye shows a filling defect of the cilioretinal artery superior to the fovea.

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Figure 3. Optical coherence tomography shows retinal edema of the inner retinal layers superior to the fovea in the distribution of the cilioretinal artery.

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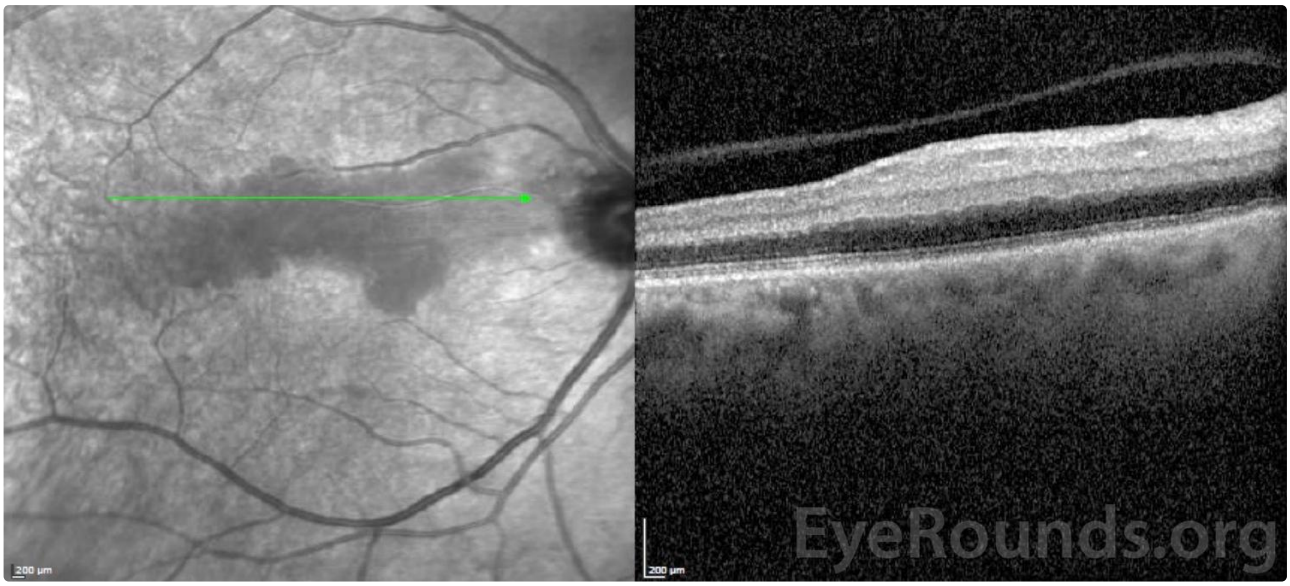

Figure 3. Optical coherence tomography shows retinal edema of the inner retinal layers superior to the fovea in the distribution of the cilioretinal artery.

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71-year-old woman presenting with a cilioretinal artery occlusion. Note the retinal whitening secondary to inner retinal edema in the distribution of cilioretinal artery perfusion. There is a prominent cherry-red spot due to intact choroidal circulation.

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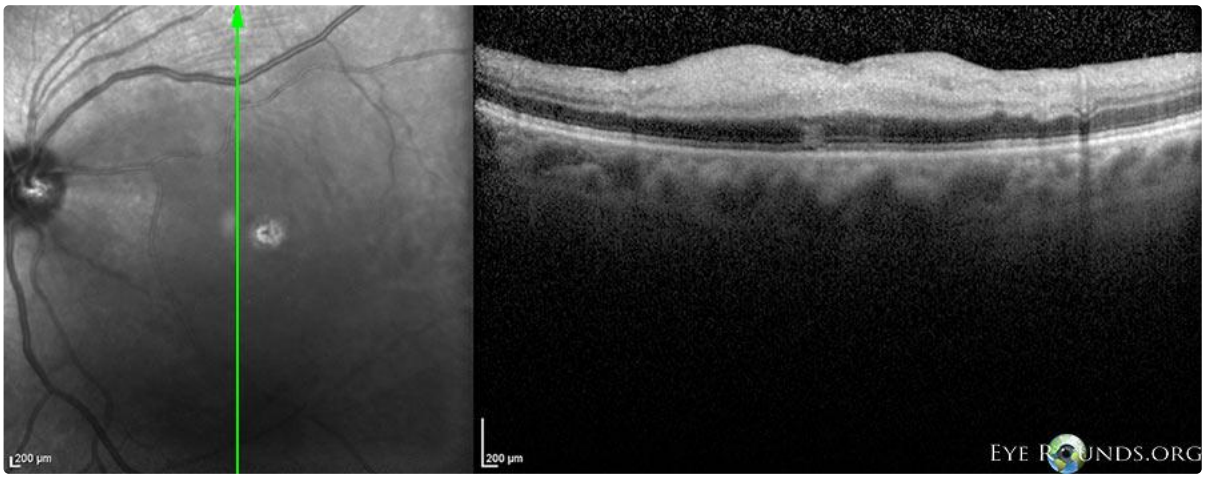

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71-year-old woman presenting with a cilioretinal artery occlusion. On OCT, there is inner retinal thickening and blurring of retinal layers due to edema.

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Reference:

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