

# CASE REPORT: CENTRAL RETINAL ARTERY OCCLUSION SECONDARY TO PRIMARY ANGLE CLOSURE

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### Purpose:

To describe a case of a patient with central retinal artery occlusion secondary to primary angle closure (PAC).

### Methods:

This is a case report study that was developed with a male patient treated at the Hospital das Clínicas da Unicamp in June, 2022. The patient in question agreed to participate in the present study, by signing the free and informed consent form.

For the preparation of this research, we used the data collected during the anamnesis and detailed ophthalmological examination, including multimodal evaluation.

### Case report:

Male patient, 68 years old, attends the ophthalmological emergency room presenting low visual acuity (VA) hospitalized in the right eye (RE) for 03 days, upon waking up. He denied ophthalmological history or systemic diseases.

AV of movement of hands in RE and 0.5 in left eye (LE). RE biomicroscopy showed ocular hyperemia, corneal edema, shallow anterior

chamber, medium mydriasis, phakic and LE was calm with transparent cornea, shallow formed chamber, trophic iris, phakic. Intraocular pressure (IOP) of 38 and 30 and gonioscopy of both eyes with closed angle in Schwalbe line, opening to the indentation. It was not possible to evaluate the RE funduscopy due to the opacity of the media and the LE without relevant alterations.

Diagnosed with cronic PAC and emergency treatment was initiated with pilocarpine, hypotensive eye drops and an iridotomy was performed in the both eyes. After 48 hours patient with improvement of edema in RE and IOP in both eyes of 20/14. OD funduscopy with clear vitreous, applied retina with pallor in the posterior pole sparing the foveal region, sparse retinal microhemorrhages and stained optic disc with physiological excavation.

Fluorescein angiography was performed with increased arm-eye time and slowing of the arterial phase. Follow-up macular optical tomography demonstrating hyperreflectivity of the inner retinal layers consistent with central retinal artery occlusion (CRAO) in the right eye, with probable etiology related to vasospasm due to increased IOP secondary to PAC.

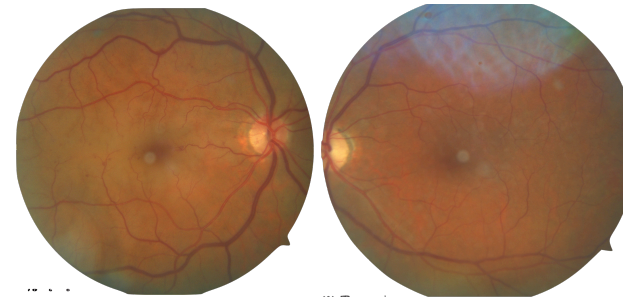


Figure 1. Retinography of the right eye demonstrating pallor of the posterior pole sparing the foveal region and exam without alteration of the left eye

**Results and discussion:** CRAO is a rare serious disease that is caused by embolism, atherosclerosis, vasculitis and/or vasospasm, and its association with primary angle closure is even rarer.

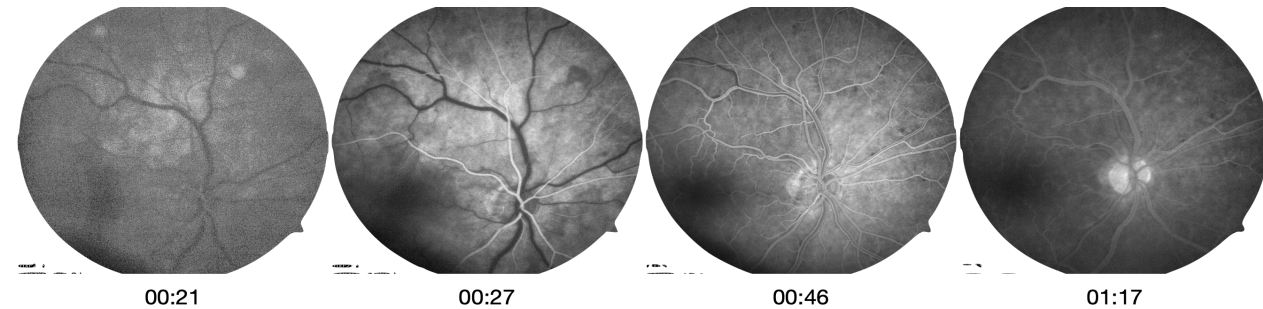


Figure 2. Fluorescein angiography of the right eye with increased arm-eye time and slowed arterial phase

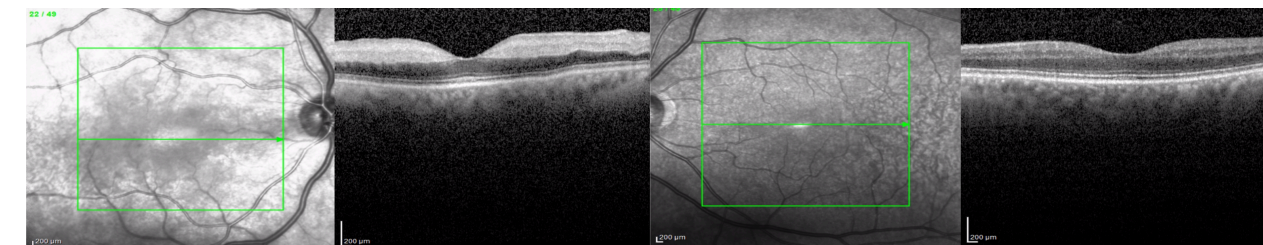


Figure 3. Optical coherence tomography of the right eye with hyperreflectivity of inner layers.