BILATERAL CYSTOID MACULAR EDEMA AFTER UNILATERAL CATARACT SURGERY

Lana Martins Menezes[1], Rafael Cicconi Arantes[1], Juliana Abreu Rio[1], Ricardo Luz Leitão Guerra[1,2]

1. Clínica de Olhos Leitão Guerra, Salvador, Brazil.
2. Department of Ophthalmology, Obras Sociais Irmã Dulce, Salvador, Brazil.

PURPOSE

To report a rare case of bilateral cystoid macular edema after unilateral cataract surgery.

INTRODUCTION

Cystoid macular edema (CME) is characterized by intraretinal edema contained in honeycomb cystoid spaces. The source of edema is the peripheral capillary permeability abnormality of the peripheroveal retina. This change can occur in a wide variety of conditions, including: Diabetic retinopathy, Central retinal vein occlusion (OCVR), Retinal vein branch occlusion (BRVO), Uveitis (pars planitis) and Retinitis pigmentosa. It may occur after any eye surgery. Post-facectomy CME is the most common known cause. The increase in prostaglandins leads to fluid accumulation between the inner nuclear and outer plexiform layers, forming the cysts and edema, characteristic of the disease.

Clinically, most patients complain of reduced visual acuity and macular thickening is observed by posterior segment biomicroscopy. Complementary examinations such as angiofluoresceinography (AFG) and optical coherence tomography (OCT) help in the diagnosis.

The peak incidence after cataract surgery is between 6-10 weeks. The main surgical risk factors are: vitreous traction during surgery, iris imprisonment, intraocular lens mispositioning and posterior capsule rupture. Among others: Diabetes Mellitus, epiretinal membrane. In 95% uncomplicated cases, they resolve spontaneously within 6 months. This poster aims to report the case of a patient with bilateral CME after unilateral cataract surgery.

RESULTS

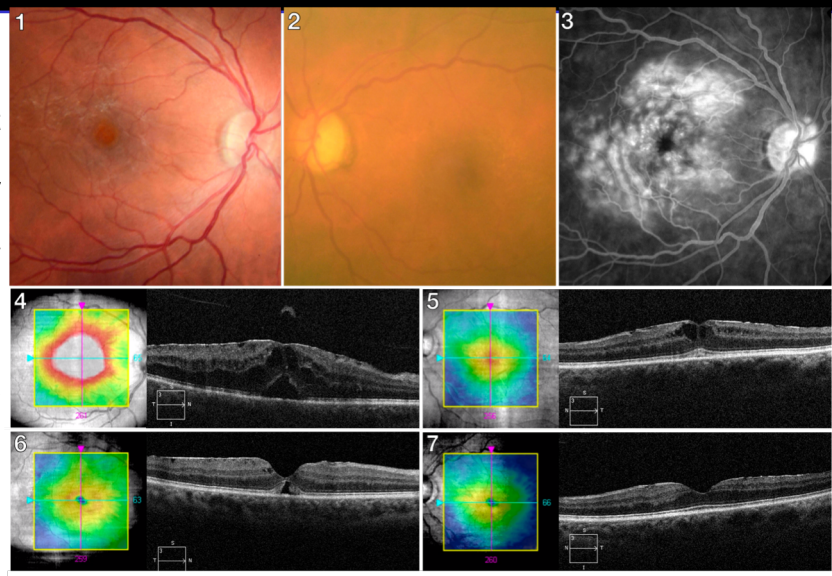
66-year-old female patient, who was undergoing surgical programming for facectomy. She had glaucoma surgery in both eyes (BE). At examination, the best corrected visual acuity (VA) was: Right eye 20/200 and left eye 20/30. Anterior segment presented superior trabeculectomy bubble, bilateral nuclear cataract. IOP was 12 in BE and fundus showed increased papillary excavation. Cataract surgery with IOL implantation in the capsular sac, with VA improvement to 20/40. 5 weeks after surgery she reported low vision. VA was 20/200 and 20/60. Fundus showed macular edema and a thin epirretinal membrane in RE. AFG and OCT showed CME. Topical NSAID was started and after 3 months, OCT showed anatomical improvement. No further interventionist measures were required.

DISCUSSION

We were unable to find, in the reviewed literature, a situation of bilateral occurrence after unilateral surgery. According to case reports in the literature, the occurrence is unilateral, in the same eye in which cataract surgery was performed. In this case, retrospective analysis did not allow to determine the exact mechanism involved in the pathophysiology of the bilateral condition.

Differential diagnoses of CME such as hereditary X-linked retinoschisis, Goldmann-Favre disease, and retinitis pigmentosa were ruled out, as well as AFG findings of no leakage.

The treatment of CME is done according to the clinical response cascade. Initially, non-steroidal anti-inflammatory and topical steroids are made to reduce the prostaglandin-induced inflammatory response. If unsuccessful, peri or intraocular triamcinolone acetate, dexamethasone implantation and, in selected cases, antiangiogenic therapy may be performed. In cases of CME by ERM or vitreomacular traction, surgical intervention may be appropriate.



Caption: 1) RE color retinography. **2)** Color retinography of the LE. **3)** Final phase of AFG presenting macular edema. **4)** OCT from RE to diagnosis - presence of EMC. **5)** OCT from LE to diagnosis - presence of EMC. **6)** RE OCT after 90 days of treatment showing great anatomical improvement, with little accumulation of residual subretinal fluid. **7)** OCT from LE after 90 days of treatment showing CME resolution.

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