# SPONTANEOUS CLOSURE OF A FULL THICKNESS MACULAR HOLE ASSOCIATED WITH RHEGMATOGENOUS RETINAL DETACHMENT: CASE REPORT

## ZUCATTI, C L; PIO, I C B; GONDIM, B H F; BARBOSA, P C; MIRANDA, R A S; CARVALHO, D B M; PINHEIRO, A A

### **INTRODUCTION**

Macular hole (MH) sometimes presented with retinal detachment at the same time. MHinduced retinal detachment occurs mainly in patients with pathologic myopia having posterior staphyloma and myopic tractional maculopathy. Macular hole related retinal detachment is a common entity with poor surgical prognosis in highly myopic eyes <sup>(1)</sup>

#### **METHODS**

Case report.

#### RESULTS

A female patient, 65-years-old, highly myopic, sough ophtalmological care due to low visual acuity in the left eye (OS) in September 2022.

On examination, she presented refraction OD -4,50 and OS -8,00, visual acuity of 20/30 and counting fingers at 50 cm, respectively, with an axial length of 21,9mm OD and 23,8mm OS. Fundoscopy showed myopic choroiditis in both eyes and posterior staphyloma and graded IV macular hole with rhegmatogenous retinal detachment in the posterior pole of the OS, confirmed for optical coherence tomography (OCT) and ultrasound (FIG 1 and 2). Was scheduled pars plana vitrectomy in OS.

In the pre-surgical evaluation, six months after, spontaneous closure of the macular hole and persistence of retinal detachment was observed, documented for a new OCT (FIG 3). Opted for watchful waiting and monthly reassessments.

#### **IMAGES**

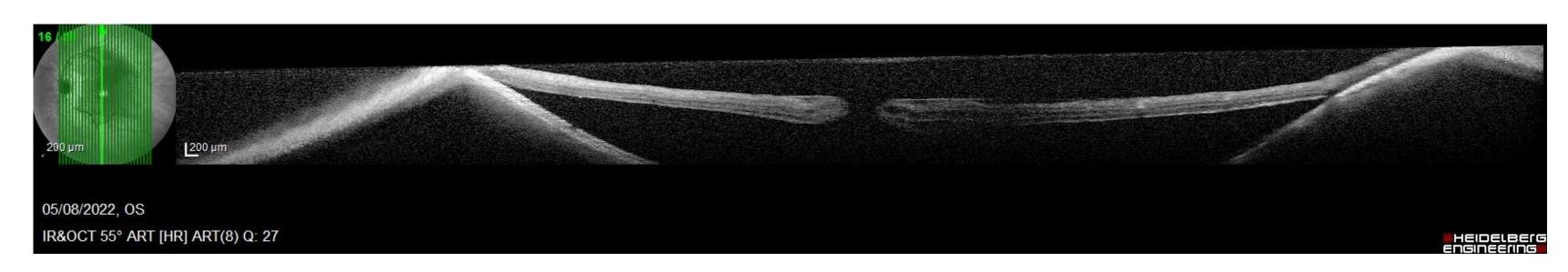


FIG 1

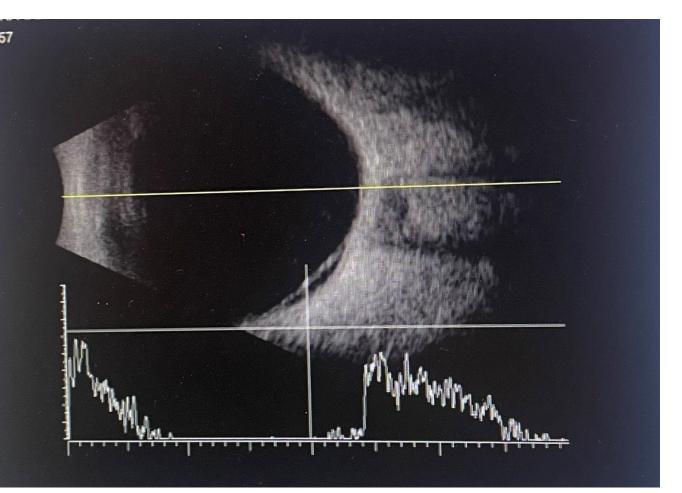


FIG 2

The full-thickness macular hole is more common in women between the sixth and seventh decades of life .<sup>(2,3)</sup>. It is a frequent complication in highly myopic patients, and these cases result from the traction of the vitreous cortex and the formation of posterior staphyloma.<sup>(2-6)</sup>.

Treatment of the macular hole associated with retinal detachment is usually challenger. It can be performed by two techniques: with or without perfluorocarbon. In the perfluorocarbon technique, the gas helps to stabilize the detached retina, facilitating internal limiting membrane (ILM) peeling and preventing the indocyanine green (ICG) dye from going into the subretinal space. In the technique without perfluorocarbon, ICG dye is injected away from the macular hole and ILM peeling was done.<sup>(4)</sup>

Spontaneous closure of a macular hole without rhegmatogenous detachment is rare. In cases with associated detachment, only one case of spontaneous closure has been reported in the literature at moment. <sup>(5)</sup>

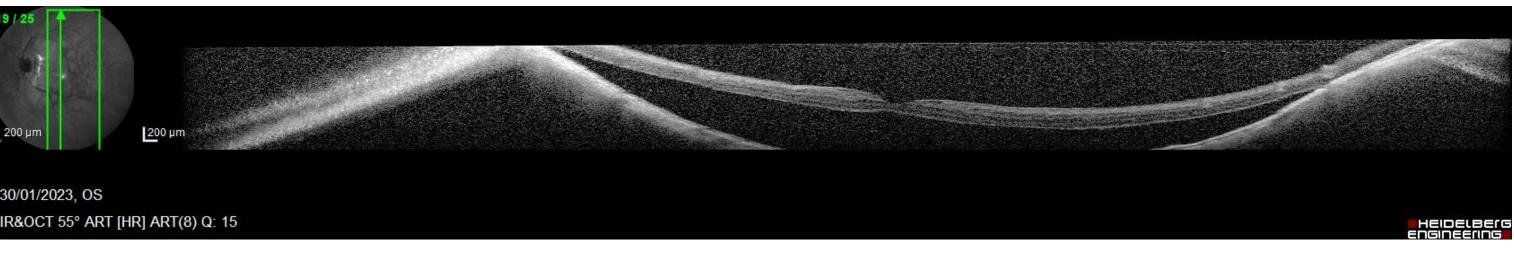


FIG 3

1. Abbey AM, Van Laere L, Shah AR, Hassan TS. Recurrent macular holes in the era of small-gauge vitrectomy: A Review of Incidence, Risk Factors, and Outcomes. Retina. 2017 May;37(5):921-924.

2. De Giacinto C, Pastore MR, Cirigliano G, Tognetto D. Macular Hole in Myopic Eyes: A Narrative Review of the Current Surgical Techniques. J Ophthalmol. 2019 Mar 11;2019:3230695.

3. Suzuki ACF, Zacharias LC, NóbregaMJ, Pretti RC, Takahashi WY. Spontaneous closure of macular hole after pars plana vitrectomy: report of two cases. Rev Bras Oftalmol. 2014; 73 (6): 389-91

4. Atchison EA, Rezaei KA. Managing the macular hole with concurrent retinal detachment. Retina Today. 2018 Jan; 26-32 4. Nakazawa T, Yamaguchi K, Shimura M, Yoshida M, Yoshioka Y, Tamai M. Clinical features of bilateral acute idiopathic maculopathy Jpn J Ophthalmol. 2003;47:385–91

5. Yu, J., Jiang, C. & Xu, G. Spontaneous closure of a myopic macular hole with retinal reattachment in an eye with high myopia and staphyloma: a case report. BMC Ophthalmol 14, 111 (2014).

6. Kobayashi H, Kobayashi K, Okinami S. Macular hole and myopic refraction. Br J Ophthalmol. 2002 Nov;86(11):1269-73. doi: 10.1136/bjo.86.11.1269. PMID: 12386087; PMCID: PMC1771378.

7. Ogawa, M., Ohji, M. Spontaneous closure of a macular hole after vitrectomy for an epiretinal membrane. Jpn J Ophthalmol 54, 368–370 (2010)

#### DISCUSSION

#### REFERENCES