

(X) R1 ( ) R2 ( ) R3 ( ) PG0 ( ) PG1 ( ) Estagiário ( ) Tecnólogo ( ) PIBIC

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Service (sector)

Retina and Vitreous

Nº CEP

### **Optical Coherence Tomography Evaluation of Idiopathic Macular Hole Treatment by Gas-Assisted Posterior Vitreous Detachment.**

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**Purpose:** To report three cases of idiopathic macular hole, with vitreoretinal traction confirmed by optical coherence tomography (OCT) that is successfully treated by a single perfluoropropane (C3F8) gas bubble injection.

**Methods:** Case reports. Patient 1: 65-year-old patient with idiopathic macular hole (stage 2, one eye) received an intravitreal gas injection and was prospectively followed with OCT; patient 2: 65-year-old patient with idiopathic macular hole (stage 2, one eye) with vitreous-macular traction received a intravitreal gas injection and was prospectively followed with OCT, as patient 3, a 72-year-old patient with idiopathic macular hole (stage 2, one eye).

**Results:** Patient 1: a complete posterior vitreous detachment (PVD) was achieved within six weeks after gas injection. Visual acuity improved from 20/80 to 20/25 by ten months of follow-up. OCT disclosed vitreoretinal traction release and macular hole closure. There was no complications related to the procedure; patient 2: visual acuity improved from 20/200 to 20/80 by two months of follow-up; patient 3: visual acuity improved from 20/200 to 20/80 by two months of follow-up. OCT disclosed vitreoretinal traction release and macular hole closure.

**Conclusion:** This relatively safe procedure can assist a complete PVD, with relief of the hyaloid-foveolar traction, facilitating macular hole closure.