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25-Gauge Vitrectomy with Air Tamponade and 12 Hours Prone Positioning for a Stage 4 Macular Hole

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ABSTRACT

Background: Macular hole is a rare retinal pathology with complex treatment options. All the modern surgical procedures used can achieve a high percentage ofanatomical hole closure, but functional recovery is incomplete and vulnerable to multiple complications.

Case report: We present the case of a 61-year-old female with a history of high myopia, left eye high amblyopia, right eye operated retinal detachmentand cataract, diagnosed in 2012 with recent stage 4 macular hole on her single eye. We decided to perform in this case a non-standard procedure: transconjunctival 25-G vitrectomy with only anair endotamponade and 12 hours prone positioning.

Results: Despite the poor perspectives, the early postoperative outcome was favorable, without any significant complications and the final outcome was exceptionally good, with full visual function recovery and complete anatomical macular hole closure.

Conclusion: the fast resolution air tamponade and short postoperative patient positioning can be just as effective as the standard surgical procedure, can produce above-average visual function recovery and is particularly useful in single eye patients.

Abbreviations: 25-G - 25-Gauge, BCVA - best corrected visual acuity, ILM - internal limiting membrane, C3F8 - octafluoropropane, MH - macular hole, OCT - optical coherence tomography, SF6 - sulfur hexafluoride

Key words: 25-Gauge vitrectomy, short-term air tamponade and prone positioning, single eye macular hole