

Surgical Retina

**TREATMENT OF INFERIOR RETINAL DETACHMENTS WITH VITRECTOMY  
AND HIGHER CONCENTRATION GAS TAMPONADE ALONE**

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**PURPOSE:** To describe the clinical course of ten patients who underwent 25-gauge pars plana vitrectomy (PPV) for the repair of primary or complex, macula-off, inferior rhegmatogenous retinal detachments (iRRD), using higher than usual concentrations of perfluoropropane (C3F8) gas tamponade.

**METHODS:** Medical records of ten eyes/ten consecutive patients, presenting with iRRD, operated by a single surgeon (E.Dh.) from 2017-2022, were analyzed. High intraocular pressure (IOP) was defined as a single value of 24 mm Hg or higher, at any point during the presence of tamponade or afterward. Patients were followed particularly closely (every 2-3 days on Month1; weekly for 3 months; monthly thereafter) for prompt detection/treatment of complications.

**RESULTS:** Ten consecutive patients, 24-75 years old, who underwent PPV for iRRD were enrolled. Five patients (50%) were female; 4 (40%) were phakic. Each patient presented with lesions (retinal breaks, lattice, retinoschisis with inner/outer tears, choroidal effusions) located solely in the inferior quadrants. Decision was made to use higher C3F8 concentrations (16-18%). The gas fill on post-operative day1 was 100% in all. No cataract formed in phakics. Mean duration of gas tamponade was 6 weeks. Mean follow-up interval was 180 weeks. All patients reattached and remained attached, showing normalization of their foveal on spectral-domain optical coherence tomography, mirrored by a highly significant improvement in acuity. None developed IOP spikes or optic nerves changes.

**CONCLUSIONS:** The inferiorly located pathology in this limited series was adequately treated using PPV and gas alone and appeared to remain free of untoward IOP-related events.

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