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PNEUMATIC RETINOPEXY IN CHALLENGING AND ATYPICAL CASES WITH RHEGMATOGENOUS RETINAL DETACHMENT

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Purpose: To report the outcomes of pneumatic retinopexy (PnR) performed by a single surgeon as initial therapy in atypical patients with rhegmatogenous retinal detachment (RRD).

Material and methods: A total 20 eyes of 20 patients who underwent PnR from January 2016 to January 2021 at the Department of Ophthalmology, Baskent University Faculty of Medicine, Ankara, Turkey, were included in this retrospective study. A single surgeon operated on all patients, and all were followed for at least 24 months postoperatively. In the following visits, dilated fundus examination, OCT(Optical Coherence Tomography), OCTA(Optical Coherence Tomography Angiography), posterior pole photos and 360-degree peripheral retina photographs were taken.

The study included 10 male (%50) and 10 female (%50). The etiologies of selected special cases were big retinal tears (%40), bullous retinal detachment (%35), retinal dialysis (%5), retinal and choroidal detachment (%5), retinal tears in the lower clock (%5), and giant retinal tears (%10), respectively. After completing laser photocoagulation and successful head positioning on all cases, which resulted in no detachment during follow-ups.

Conclusion: PnR is typically only used for retinal tears in the upper clock and involves a single break of less than one hour. However, the exact criteria are controversial and largely dependent on surgeon and patient factors; it was used in the treatment of many different etiologies, including atypical localization and multiple in this study. PnR is less invasive, can be performed in the office, avoids postoperative refractive changes or strabismus, and is associated with faster recovery. PnR is a very solution-oriented process in experienced hands; the most important factor in optimizing a successful outcome is proper patient selection.