

# FREQUENCY OF RETINAL REDETACHMENT BASED ON THE PRIMARY REATTACHMENT TREATMENT AND INTRAOCULAR TAMPONADE

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## ABSTRACT

**Introduction:** To observe the number and presentation of retinal redetachment after primary reattachment treatment in a national eye center. **Methods:** This study was designed for observational-descriptive of the medical record from April 2011 to March 2012. Selected cases were identified on the secondary retinal surgery for retinal reattachment followed the failure of the primary treatment. Cases were then classified into 4 groups based on the primary reattachment procedure: pneumatic retinopexy (PR), scleral buckle (SB), pars plana vitrectomy (PPV), and combined SB with PPV. Furthermore, in the group of PPV and SB+PPV were then divided into 3 subgroups based on the intraocular tamponade: SF<sub>6</sub> gas, silicone oil, and heavy silicone oil. **Results:** At one-year followed-up data, the presentation retinal redetachment was 7.1%, relative to the sex female (26%) was less than male (74%) with the most common age group was 41-50 years-old. Regarding with primary reattachment treatment, cases of retinal redetachment after pneumatic retinopexy was 6%, the scleral buckle was 16%, pars plana vitrectomy was 29%, and combined sclera buckle with pars plana vitrectomy was 48%. **Conclusions:** Rates of retinal redetachment after primary reattachment treatment varied from 6% to 48%, that were performed by combined scleral buckling and pars plana vitrectomy with or without tamponade silicone oil.

**Keyword :** Retinal redetachment, pars plana vitrectomy, scleral buckle, silicon oil, intraocular gas

## INTRODUCTION

The term of retinal detachment (RD) is used to describe a separation of the neurosensory retina from the retina pigment epithelium (RPE) and the potential space is occupied by sub-retinal fluid.<sup>1,2</sup> Nearly all retinal detachments fall into one of three general categories based on the underlying cause of the RD. The first is rhegmatogenous retinal detachment (RRD), which occurs as the result of a full-thickness retinal break. The second category is traction retinal detachment (TRD) occurs when vitreoretinal adhesions mechanically detach the retina from the un-

derlying RPE. In some instances, RD may involve both RRD and TRD. The third category is exudative serous retinal detachment (ERD), this type of RD occurs due to a process, such as a tumor or inflammation resulting in accumulation of subretinal fluid without associated traction or full-thickness retinal break.<sup>2</sup>

The incidence of RRD, the most common type of retinal detachment, varies between 12.9 to 17.9 per 100,000 persons per year. The primary interventions currently used to repair RRD are pneumatic retinopexy, scleral buckle, pars plana vitrectomy (PPV), and combined PPV with scleral buckle.<sup>3</sup>