



RETINA CIRÚRGICA

08:30 | 10:45 SALA VEGA

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**CL112- TO BUCKLE OR NOT TO BUCKLE? – CASE SERIES**

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**Introduction:** Scleral buckling remains a valuable procedure in the management of regmatogenous retinal detachment (RRD) and continues to be part of retina surgical education. However, there is no consensus regarding its use in the optimal management of RRD.

**Purpose:** To evaluate pars plana vitrectomy (PPV) versus combined PPV and scleral buckle (PPV/SB) for repair of RRD.

**Material and Methods:** Retrospective observational study of a total of 120 patients (61 who underwent PPV and 59 submitted to PPV/SB) for primary repair of primary retinal detachment (RD) between Jan-2010 and May-2015 in Hospital de Santa Maria - Lisbon. Mean follow-up time was 9 months.

Only primary retinal detachment cases were considered. Two groups, PPV and PPV/SB, were created. The following clinical data were collected: age, sex, best-corrected visual acuity before and after surgery (logMAR), follow-up time, phakic and macular status, as well as RD recurrence. These parameters were then compared between both groups. In further data analysis, three paired subgroups were used: 1) SF6 gas; 2) C3F8 gas; and 3) Silicone oil. Main outcome measures were 1) Single surgery anatomic success, 2) Postoperative visual acuity gain, and 3) Recurrence.

**Results:** Studied population included 120 subjects (50 female). Mean age in the PPV and PPV/SB groups were 60.5±10.5 years and 61.7±15.3 years, respectively. In the PPV group and PPV/SB groups, 18 (30%) and 10 (17%) had macula-on, respectively. In total, 86 eyes had tamponade with SF6 (31 PPV/SB), 18 with C3F8 (9 PPV/SB) and 26 with silicone oil (19 PPV/SB). Age, phakic and macular status were not different in each paired subgroup (PPV vs PPV/SB).

In SF6 subgroup there was no statistical significant difference in lines gained and recurrence between PPV and PPV/SB groups. However, there is a trend for a better visual gain in the eyes with a SB ( $p=0,07$ ).

In the C3F8 subgroup there was no statistical significant difference in recurrence between PPV and PPV/SB groups. A sub-analysis showed that those without SB gained more lines ( $p<0,05$ ).

In the silicone oil subgroup there was no statistical significant difference in lines gained and recurrence between PPV and PPV/SB groups. However, there is a trend for less recurrence in the eyes with a SB ( $p=0,08$ ).

**Conclusions:** The selection of PPV/SB or PPV alone depended mainly on the type of retinal detachment, position of retinal tear or hole, proliferative vitreoretinopathy and preferences of retinal surgeon. In this study, PPV and PPV/SB seem to have similar efficacy in the repair of RRD in all the analyzed sub groups: SF6, C3F8 and silicone oil. Within the silicon group there is a trend for less recurrence of RD when a scleral buckle is performed. Although limited by the difficulty in controlling for selection bias, our study stresses the importance of clarifying the indications and procedure to better manage each individual case.