



April 2014

Volume 55, Issue 13

ISSUE

FREE

ARVO Annual Meeting Abstract | April 2014

## Primary 25-Gauge Airbag-Vitreectomy in Pseudophakic Rhegmatogenous Retinal Detachment

Michele Reibaldi; Teresio Avitabile; Antonio Longo; Michele Nicolai; Andrea Saitta; Vincenza Bonfiglio; Andrea Russo; Francesca Viti; Mario Toro; Cesare Mariotti

+ Author Affiliations &amp; Notes

Investigative Ophthalmology & Visual Science April 2014, Vol.55, 2347. doi:<https://doi.org/>

SHARE

TOOLS

94

Views

0

Citations

View Metrics

Advertisement

### Abstract

**Purpose:** To evaluate the anatomic and functional outcomes and the rate of complications of primary 25-gauge airbag-vitreectomy in the treatment of pseudophakic rhegmatogenous retinal detachment (PsRD) uncomplicated by severe proliferative vitreoretinopathy.

**Methods:** In this prospective, nonrandomized, surgical technique study, 141 eyes of 141 consecutive patients with PsRD with proliferative vitreoretinopathy grade A or B underwent primary 25-gauge airbag vitreectomy, consisting in pars plana vitrectomy performed under continuous infusion of air, and air or gas endotamponade. Eyes with minimum follow-up of 6 months were evaluated. The preoperative and postoperative characteristics were analyzed. Main outcome measures were primary anatomical success rate, defined as retinal reattachment at final follow-up after a single operation without additional surgery, visual outcome at the last follow-up visit, and rate of complications.

**Results:** At six months the retina was reattached successfully after a single surgery in 98% of eyes (138/141). Recurrence of retinal detachment occurred in 3 eyes (2%) during the follow-up period, caused by proliferative vitreoretinopathy in 2 eyes and by new retinal breaks in 1 eye. After treatment, BCVA improved significantly ( $P < 0.000$ , ANOVA). Mean final visual acuity (SD) was 0.28 (0.34) logarithm of the minimum angle of resolution (logMAR) compared with 0.94 (0.84) logMAR before surgery ( $P < 0.001$ , Tukey-Kramer test). The most common postoperative complication was hypotony, detected in 4 eyes (3%) on postoperative day 1.

**Conclusions:** Primary 25 gauge airbag vitreectomy provides a high anatomic success rate in eyes with PsRD and is associated with a low rate of complications.

**Keywords:** 762 vitreoretinal surgery • 697 retinal detachment