

Primary vitrectomy in phakic eyes with air tamponade - unnecessary risk or rationale approach?

Author: Slawomir Cisiecki, Lodz, Poland

Advantages:

1. Possibility of adequately calculate IOL power in subsequent cataract surgery in macula off retinal detachments
2. Preservation of crystalline lens (accommodation) in cases of young patients with longer delay of cataract surgery
3. No risk of exodrainage, no postoperative astigmatism, no diplopia comparing to buckling procedures
4. Higher effectiveness and safety concerning reattachments rate in cases of posteriorly localized or multiple breaks with PPV over buckling

Methods:

Analysis of 6 cases with rhegmatogenous retinal detachment with different size and breaks location, who underwent primary vitrectomy with air tamponade without lens surgery and additional buckling procedures. Modifications of surgical techniques (with or without chandelier lights) depending from locations of breaks will be presented. Disadvantages of working under air with wide angle viewing system in phakic eyes and the risk of vaporization of PFCL bubble will be discussed.

Effectiveness / Safety:

All cases had successful attachment of retina with at least 3 months follow-up. In 2 cases, cataract surgery was performed subsequently with the possibility of accurate measurement of axial length. One patient suffered due to significant visual field defect in more than one quadrant, which was not involved in detachment before surgery (probable prolonged air infusion).

Take home message:

Careful patients selection enables to choose surgical strategy with minimal side effects. Primary vitrectomy in phakic eyes in selected cases is a reasonable option and allows the balance between adequate vitreous removal and preservation of crystalline lens.