

Multicenter Study

Ophthalmology

2013 Sep;120(9):1804-8.

doi: 10.1016/j.ophtha.2013.01.070. Epub 2013 Apr 16.

Strategy for the management of uncomplicated retinal detachments: the European vitreo-retinal society retinal detachment study report 1

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PMID: 23601799

DOI: [10.1016/j.ophtha.2013.01.070](https://doi.org/10.1016/j.ophtha.2013.01.070)

Abstract

Objective: To study success and failure in the treatment of uncomplicated rhegmatogenous retinal detachments (RRDs).

Design: Nonrandomized, multicenter retrospective study.

Participants: One hundred seventy-six surgeons from 48 countries spanning 5 continents provided information on the primary procedures for 7678 cases of RRDs including 4179 patients with uncomplicated RRDs.

Methods: Reported data included specific clinical findings, the method of repair, and the outcome after intervention.

Main outcome measures: Final failure of retinal detachment repair (level 1 failure rate), remaining silicone oil at the study's conclusion (level 2 failure rate), and need for additional procedures to repair the detachment (level 3 failure rate).

Results: Four thousand one hundred seventy-nine uncomplicated cases of RRD were included. Combining phakic, pseudophakic, and aphakic groups, those treated with scleral buckle alone (n = 1341) had a significantly lower final failure rate than those treated with vitrectomy, with or without a supplemental buckle (n = 2723; P = 0.04). In phakic patients, final failure rate was lower in the scleral buckle group compared with those who had vitrectomy, with or without a supplemental buckle (P = 0.028). In pseudophakic patients, the failure rate of the initial procedure was lower in the vitrectomy group compared with the scleral buckle group (P = 3×10⁻⁸). There was no statistically significant difference in failure rate between segmental (n = 721) and encircling (n = 351) buckles (P = 0.5). Those who underwent vitrectomy with a supplemental scleral buckle (n = 488) had an increased failure rate compared with those who underwent vitrectomy alone (n = 2235; P = 0.048). Pneumatic retinopexy was found to be comparable with scleral buckle when a retinal hole was present (P = 0.65), but not in cases with a flap tear (P = 0.034).

Conclusions: In the treatment of uncomplicated phakic retinal detachments, repair using scleral buckle may be a good option. There was no significant difference between segmental versus 360-degree buckle. For pseudophakic uncomplicated retinal detachments, the surgeon should balance the risks and benefits of vitrectomy versus scleral buckle and keep in mind that the single-surgery reattachment rate may be higher with vitrectomy. However, if a vitrectomy is to be performed, these data suggest that a supplemental buckle is not helpful.

Financial disclosure(s): The author(s) have no proprietary or commercial interest in any materials discussed in this article.