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COMPARISON BETWEEN SCLERAL BUCKLING AND VITRECTOMY IN THE ONSET OF CYSTOID MACULAR EDEMA AND EPIRETINAL MEMBRANE AFTER RHEGMATOGENOUS RETINAL DETACHMENT REPAIR

Oral

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Purpose:

To investigate the incidence and risk factors for the main complications in patients with rhegmatogenous retinal detachment treated with scleral buckling (SB) or pars plana vitrectomy (PPV).

Methods:

A retrospective, comparative, observational study was conducted. The medical records of 107 patients with primary rhegmatogenous retinal detachment who were managed with SB (n = 57) or PPV (n = 50) were reviewed. Scleral buckling was performed using scleral encircling solid silicone band and circumferential solid silicone explant to support the break. Pars plana vitrectomy was combined with phacoemulsification in phakic eyes and with scleral encircling in inferior detachments. Follow-ups, including spectral-domain optical coherence tomography examination, were scheduled at 1, 3, and 12 months after surgery. Propensity score matching was used to adjust for potential preoperative selection bias.

Results:

The overall incidence of postoperative cystoid macular edema (CME) and epiretinal membrane was 14.95% and 30.84%, respectively. Compared with SB, CME was more frequent in the PPV (P = 0.021) and in the PPV pseudophakic eyes (P = 0.027). Postoperative CME was an early, predominantly transient complication and regressed in 67% of SB and in 77% of PPV eyes within 12 months after surgery. No differences were observed regarding epiretinal membrane development. Except for the surgical technique, no preoperative factors associated with CME were identified. A correlation between epiretinal membrane and patients' age was found (P = 0.028).

Conclusions:

The incidence of CME after rhegmatogenous retinal detachment repair was higher in patients who underwent PPV, either alone or combined with phacoemulsification, than in those treated with SB. Epiretinal membrane development was correlated to older age, regardless of the surgical procedure.