COMPLICATIONS DUE TO CATARACT SURGERY WHEN COMBINED WITH 23 GAUGE VITRECTOMY AND GAS EXCHANGE SURGERY

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PURPOSE: To evaluate the anterior segment complications of combined 23-gauge transconjunctival sutureless vitrectomy and gas with phacoemulsification and intraocular lens (IOL) implantation.

MATERIALS AND METHODS: In this study, 20 eyes of 19 patients who underwent combined 23G vitrectomy with phacoemulsification were analyzed retrospectively. The best visual acuity and cataract surgery-related complications of patients were recorded.

RESULTS: Eight patients were female, 11 were male. Mean age was 64.5 (50-77). Phacoemulsification and IOL implantation was performed after introduction of triport 23G transconjunctival trocar system, then vitrectomy resumed. The mean follow-up was 4.4 months (1/4-10). Preoperative worst visual acuity was hand movements and best visual acuity was 4/10 (median: 2/10). Postoperative worst visual acuity was hand movements (1-week follow-up available), best visual acuity was 10/10 (median: 2/10). Sulcus placed polymethylmethacrylate (PMMA) IOL was implanted in two eyes due to zonule weakness. In order to protect depth of anterior chamber corneoscleral tunnel was sutured with one corneoscleral suture in four eyes. Corneoscleral sutures were removed after two weeks. The gas transition to the anterior chamber was determined in one eye. In the postoperative first day mild corneal edema was observed in two eyes, trace cell in anterior chamber in five eyes, subconjunctival hemorrhage in two eyes. During a follow-up period (1-4 Months) two eyes developed posterior capsular opacification. No vitrectomy-related complication occurred in any patient. In long-term follow-up none of the patients developed serious complications such as endophthalmitis.

CONCLUSION: Combined vitrectomy and cataract surgery increases retinal visibility and avoids secondary surgery requirement in patients with both cataract and retinal pathology. Combined 23 gauge transconjunctival sutureless vitrectomy and phacoemulsification + IOL implantation and gas exchange is effective and reliable.