

Outcomes of different management options for malignant glaucoma: a retrospective study

Debrouwere V, Stalmans P, Van Calster J, Spileers W, Zeyen T, Stalmans I.

Department of Ophthalmology, Kapucijnenvoer 33, 3000, Leuven, Belgium.

BACKGROUND: To assess the outcomes of the various medical and surgical treatment options for malignant glaucoma.

METHODS: Design Retrospective, comparative case series. Participants Twenty-four eyes of 21 patients with malignant glaucoma. Intervention Nine eyes were treated medically. Twenty-one eyes underwent surgery, 15 of which had the full vitrectomy-(phaco) -iridectomy-zonulectomy procedure. Main outcome measures Intraocular pressure (IOP) , best-corrected visual acuity (BCVA) and number of glaucoma medications were measured.

RESULTS: The relapse rate was 100% after medical therapy, 75% after a Yag laser capsulotomy and a hyaloidotomy, 75% after a conventional vitrectomy and 66% after an anterior vitrectomy in combination with an iridectomy-zonulectomy. All patients who underwent a full vitrectomy combined with an iridectomy and a zonulectomy (and phacoemulsification if phakic) had postoperative relief of malignant glaucoma without relapse within the follow-up period. After this vitrectomy-tunnel technique, the IOP ranged from 10 to 22 mmHg (mean 16 mmHg) after a mean follow-up of 61 days. Mean BCVA improved by 5 Early Treatment Diabetic Retinopathy Study (ETDRS) lines, and mean number of glaucoma medications decreased from two to one.

CONCLUSION: Complete vitrectomy combined with iridectomy and zonulectomy (and phacoemulsification, if applicable) most successfully managed aqueous misdirection syndrome in our retrospective case series.

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