Abstract 223

GLAUCOMA FOLLOWING PARS PLANA VITRECTOMY: A CASE SERIES AND REVIEW OF THE LITERATURE

Oral

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Purpose:

Primary and secondary glaucoma risk is increased in eyes which have undergone pars plana vitrectomy. We present a case series of uncontrolled glaucoma requiring surgical intervention, which occurred in the setting of prior vitrectomy. Multimodal imaging is included and the relevant literature is reviewed.

Methods:

5 surgical cases were reviewed which required aqueous shunt insertion to control glaucoma in eyes with prior vitrectomy. Preoperative clinical history, intraocular pressure (IOP), surgical approach and postoperative course was compiled for each case. Intraoperative images and video, as well as multimodal retinal imaging were included. The relevant literature was reviewed using Pubmed, and information on prevalence, etiology, risk factors, and clinical management of post-vitrectomy glaucoma collated.

Results:

5 cases were identified. Vitrectomy had been performed for retinal detachment in 4 cases and for a tractional retinal detachment secondary to diabetic retinopathy in 1 case. Mean patient age was 62 and mean preoperative IOP was 26 mmHg. Aqueous shunt surgery was performed for all patients (Paul Glaucoma Implant), at a mean time of 6.2 years following vitrectomy. 2 patients had 2 prior vitrectomies in the affected eye. None of the patients had evidence of glaucoma prior to vitrectomy.

Conclusions:

Glaucoma following vitrectomy is common and may require surgical management. The operation of choice is aqueous shunt insertion, given that these eyes are at risk for scarring and trabeculectomy failure. Further work is needed to determine whether surgical factors exist which could mitigate the risk of glaucoma following vitrectomy.