This case report describes another case where simultaneous malignant glaucoma occurred after three years of ocular surgery with good response to surgical management.

Case Report

A 19 year old man first presented with complaints of sudden onset redness, pain in right eye since 1 day. He also was complaining of severe headache and vomiting. He was treated with Tab. oral acetazolamide, and topical steroid, Timolol maleate for last 2 weeks.

His past history was significant. He was suspected as Eales disease and was given anti tuberculosis medications for 9 month duration. Subsequently, he had undergone pars planna viterctomy for vitreous hemorrhage in Dec 2007 ion right eye. He gave history of repeated ocular pain with redness in same eye in past.

Examination

The visual acuity in the right eye was presence of light perception with faulty perception in temporal quadrant. The left eye visual acuity was 6/6. On slit-lamp examination, cornea was hazy, and there was presence of diffuse corneal edema. The anterior chambers were uniformly shallow. Pupils were semidilated with minimal reaction to light in right eye. The lens examination showed immature cataract with water vacuoles. The left eye examination was within normal limit. The intra ocular pressure was 48 mm Hg in the right and 14 mm Hg in the left eye. The gonioscoy showed 360 degree synechial angle closure on indentation in rioght eye. Left eye gonioscoy showed open angle. He had undergone ultrasound biomicrospy (UBM) earlier. The UBM finding confirmed synechial closure in right eye angle.

The possible differential were kept in mind

1. Post-vitrectomy flat AC and High IOP
2. Pupillary block glaucoma
3. Malignant glaucoma

Treatment

Tab acetazolamide 250 mgm. 1 Tablet thrice daily was started. To rule out pupillary block glaucoma, right eye peripheral irodtomy was done on the same day. Subsequently after iridotomy, the IOP remained in high thirties. The anterior chamber remained uniformly

shallow as before (figure 1).

As post iridotomy, patient's clinical picture remained same; he was suspected to have malignant glaucoma and was advised pars planna virectomy. The need to disturb anterior hyaloids was discussed with vitero-retinal specialist. He underwent pars planna vitrectomy. Subsequently patients IOP came down to 16 mm Hg. The anterior chamber become deep and cornea also cleared (fig 4).

Discussion

The reported case presented several features of malignant glaucoma. The long latent period of three year following ocular surgery is rare. Usually the attacks occur in the immediate postoperative period. Chandler and Grant described a case where malignant glaucoma developed after 38 days of surgery and in one case nine months later while Hoshiwara reported a case where this condition occured after three years of the initial glaucoma surgery.

Medical treatment does have limited role in malignant glaucoma. The mydriatic-cycloplegic treatment has been used by Chandler and Grant. The strong cycloplegic like Atropine can help. In psuedophakic and aphacik patient, laser treatment like posterior capsulotomy with rupture of anterior hyloid through peripheral iridotomy site may help. The surgical treatment of malignant glaucoma has been employed differently. It consists of lens extraction, combined with discision of the anterior vitreous face, posterior sclerotomy combined with air injection into the anterior chamber, a combination of cyclodialysis, posterior sclerotomy, vitreous evacuation along with introduction of air into the anterior chamber, retrolental decompression with transplanal drainage. In 1968, Chandler described Vitreous aspiration through 18 G needle 4 mm behind limbus with AC reformation. Byrnes et al suggested pars plana vitrectomy.

Summary

A case of delayed onset malignant glaucoma in a 19 years old man after viteo-retinal surgery is reported. The points of interest in this case are (1) its rarity. (2) A long interval between its development and ocular surgery, 3) occurrence of malignant glaucoma in patient who already had vitrectomy (4) Favourable response to surgical management.