

Case report

Post-Operative Choroidal Detachment In An Elderly Patient: A Case Report

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Abstract

We report here, a case of post operative choroidal detachment in a 93 year old woman who underwent right eye cataract surgery with trabeculectomy. Prior to surgery patient was suffering from subluxated large nuclear cataract secondary glaucoma. Despite the maximum antiglaucoma treatment her intraocular pressure remained uncontrolled. It was decided to operate her with explained guarded prognosis. There was complete choroidal detachment when she came for second follow up 10th post operative day.

Key-words: Choroidal detachment, Secondary angle glaucoma, cataract surgery, filtration surgery and elderly.

Case History

A 93 year old woman known case hypertensive and diabetic since ten years, reported with painful diminution of vision in the right eye for last three weeks. Both eyes had grade four nuclear sclerosis with large nuclei, while the right eye had a dense posterior subcapsular cataract with subluxation in addition. Fundus glow was not visible but the left eye showed a cup disc ratio of 0.5:1, and thinning of the superior and inferior neuroretinal rims. There was no evidence which was suggestive of diabetic retinopathy. The intra-ocular pressures after maximum anti glaucoma therapy were 37.2 mm Hg in right eye and 17.3 mm Hg in left eye and. In right eye

gonioscopy angle was narrow secondary to large subluxated cataractous lens (only schwalbes line was visible). Left eye gonioscopy showed open angles in all the quadrants of both the eyes. Perimetry of the right eye could not be done, while the visual field of the left eye was unreliable. The patient underwent an uneventful manual small incision cataract surgery with trabeculectomy. The eye left aphakic as lens was subluxated. The first post operative vision in the right eye was perception of hand movement. Neither wound leak nor shallowing of the anterior chamber was detected. There was no evidence of any uveal inflammation or

pupillary block either. The posterior segment of the right eye could be visualized at this time and examination revealed a cup disc ratio of 0.1-0.15. Intraocular pressures were recorded as 12.2 mm Hg in the right eye and 14.6 mm Hg in the left eye. .

When patient reported back 7 days after discharge for second follow up. Posterior segment examination revealed a 360 degrees choroidal detachment in the right eye, which was documented by Ultrasound B scan ([Fig 1-B] scan of the right eye showing choroidal detachment).



Table 1[B-scan showing total choroidal detachment (choroidal kissing sign)]

Management

The following treatment was started:

1. Atropine 1% eye drops twice a day for two weeks
2. Ofloxacin 0.3% + Prednisolone 1.0% combination Eye drops one hourly for two weeks

3. Injection Dexamethsone 8 mg intramuscularly twice a day for three days.

When patient came for third follow up about two week later, choroidal detachment was found to be resolving. The fundus was visible with clear look of optic dic, macula. The resolving choroidal detachment was also visible (Fig.2-7) The best corrected visual acuity was 2/60.



Fig.2

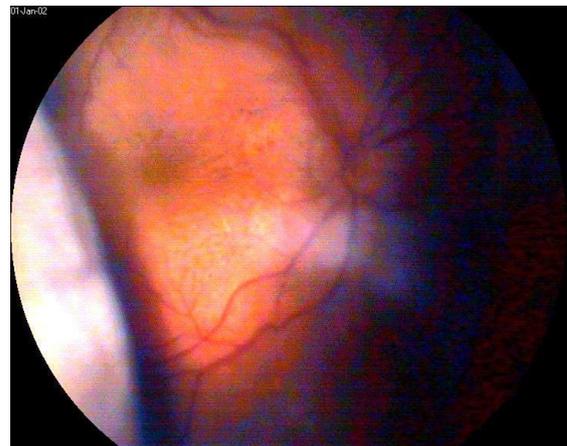


Fig.3



Fig.5.



Fig.6



Fig.7

Discussion:

Choroidal detachment is a rare complication after ocular surgery that may lead to severe visual deterioration or blindness. Choroidal detachment is a detachment of the uvea from the sclera and usually there is a sudden effusion of serous humour but no blood into the suprachoroidal space. The underlying reason for this trend remains to be determined. However, one of the mechanisms suggested regarding choroidal detachment is that the dissociation in the ciliary body of the hypotonic eye allows the aqueous humor to flow into the suprachoroidal space.⁽¹⁾ Another explanatory mechanism is that hypotony enhances the vascular permeability of the choriocapillaris.^(2, 3) Similarly, the eyes of older individuals might contain relatively fragile connective tissue, which would enhance fluid movement through the uveal tissue and the vascular wall. Glaucoma surgery carries the highest risk for the complication. The rate of choroidal detachment can reach six per cent, or when the patient is aphakic and the rate can be as high as 10 per cent. Around 10 per cent of patients with choroidal detachment will also have retinal detachments. In aphakic patients, vitreous prolapse into anterior chamber and kissing choroids are fairly common. The systemic risk factors for the choroidal detachment include advanced age, arterial hypertension and diabetes. The ocular risk factors are aphakia, pseudophakia after glaucoma operations, and retro bulbar block anaesthesia. The study by Ding C and Zeng J identified the following risk factors for choroidal detachment after trabeculectomy with

MMC: older age and reduced postoperative IOP. Subgroup analysis among the 201 patients with open angle glaucoma demonstrated that older age and reduced postoperative IOP were risk factors for choroidal detachment as well. Because choroidal detachment is a transient complication of trabeculectomy, the risk factors for choroidal detachment have not been previously analyzed in a large-scale case series. It has been well known that choroidal detachment occurs in hypotonic eyes after intraocular surgeries including trabeculectomy.^(4, 5) In this case patient had following risk factors: Old age, hypertensive, diabetic, undergone ocular surgeries particularly trabeculectomy. This patient reported with choroidal detachment in right eye within 10 days of discharge with intraocular pressure in right 12.2 mmHg. Prophylaxis includes strict control of arterial hypertension and the intraocular pressure, using such means as hyper osmotic drugs and prolonged occlusion, with the aim of keeping blood pressure and intraocular pressure as close to normal throughout any ocular surgery. In addition, special care should be taken with anterior segment surgery in myopic, hyperopic or aphakic patients.⁽⁶⁾

References

1. Pederson JE, Gaasterland DE, MacLellan HM. Experimental ciliochoroidal detachment. Effect on intraocular pressure and aqueous humor flow. *Arch Ophthalmol.* 1979;97(3):536–541.
2. Capper SA, Leopold IH. Mechanism of serous choroidal detachment; a review and experimental study. *AMA Arch Ophthalmol.* 1956;55(1):101–113.
3. Moses RA. Detachment of ciliary body – anatomical and physical considerations. *Invest Ophthalmol.* 1965;4(5):935–941.
4. Ding C, Zeng J. Clinical study on hypotony following blunt ocular trauma. *Int J Ophthalmol.* 2012;5(6):771–773.
5. Lee JY, Jeong HS, Lee DY, Sohn HJ, Nam DH. Early postoperative intraocular pressure stability after combined 23-gauge sutureless vitrectomy and cataract surgery in patients with proliferative diabetic retinopathy. *Retina.* 2012;32(9):1767–1774.
6. Jampel HD, Musch DC, Gillespie BW, Lichter PR, Wright MM, Guire KE, Collaborative Initial Glaucoma Treatment Study Group Perioperative complications of trabeculectomy in the collaborative initial glaucoma treatment study (CIGTS) *Am J Ophthalmol.* 2005;140(1):16–22.

