HYPOTONY MACULOPATHY AFTER PHACOEMULSIFICATION





A late complication after cataract surgery was resolved with treatment.

BY WEE-MIN TEH, MD, MMED; AND WEI-CHI WU, MD, PHD

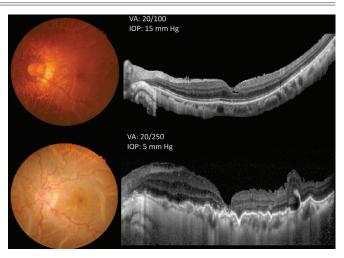
56-year-old man noted no visual improvement in his left eye (OS) 2 weeks after uneventful phacoemulsification surgery. He was a high myope (-10.00 D OS) with a history that included retinal detachment surgery in the same eye 1 year before the cataract operation was performed. BCVA before the cataract surgery was 20/100 OS (top left and top right images).

Examination revealed VA of 20/250 OS and IOP of 5 mm Hg. The cornea was clear, and the IOL was positioned well in the capsular bag without tilt or decentration. Dilated fundus examination showed a slightly blurred disc margin, dilated and tortuous retinal vessels, and multiple chorioretinal folds (bottom left image). Spectral-domain OCT (Spectralis, Heidelberg) demonstrated numerous characteristic undulations of the choriocapillaris and retina with retinal thickening. There was no serous detachment. Flattening of the posterior sclera was also seen (bottom right image).

On further inspection of the corneal wound, wound leak was suspected, and Seidel test was positive. A therapeutic bandage contact lens was applied. Over the next 6 months, the patient gradually improved, with IOP at 17 mm Hg and BCVA restored to 20/100 at 6 months.

The term *hypotony maculopathy* was coined by Gass in 1972.¹ It can be defined statistically (IOP < 6.5 mm Hg, or three standard deviations below mean IOP) or clinically (IOP low enough to cause visual loss).^{2,3} Common causes of postoperative hypotony include wound leak, overfiltration, iridocyclitis, retinal detachment, cyclodialysis, and mitomycin C toxicity of the ciliary body.⁴ Risk factors include younger age, myopia, and male sex.⁵

Successful treatment of hypotony maculopathy depends on timely and correct identification of its cause. Visual recovery is variable depending on the timing of intervention. The treatment goal in this patient was aimed at normalizing IOP to reverse the inward bowing of the sclera and resolve the chorioretinal folds.



- 1. Gass JD. Hypotony maculopathy. In: Bellows JG, ed. *Contemporary ophthalmology honoring Sir Stewart Duke-Elder* Baltimore: Williams & Wilkins: 1972:343-366.
- 2. Pederson JE. Ocular hypotony. In: Ritch R, Krupin T, Shields MB, eds. *The Glaucomas*. 2nd ed. Mosby: St. Louis; 1996:385-395.
- 3. Schubert HD. Postsurgical hypotony: relationship to fistulization, inflammation, chorioretinal lesions, and the vitreous Surv Ophthalmol. 1996;41:97–125.
- 4. Costa VP, Arcieri ES. Hypotony maculopathy. Acta Ophthalmologica Scandinavica. 2007;85(6):586-597
- 5. Stamper RL, McMenemy MG, Lieberman MF. Hypotonous maculopathy after trabeculectomy with subconjunctival 5-fluorouracii. Am J Ophthalmol. 1992;114:544–553.

WEE-MIN TEH, MD, MMED

- Vitreoretina Fellow, Department of Ophthalmology, Chang Gung Memorial Hospital, Taoyuan, Taiwan
- tehweemin@yahoo.com
- Financial disclosure: None

WEI-CHI WU, MD, PHD

- Chairman, Department of Ophthalmology, Chang Gung Memorial Hospital, Taoyuan, Taiwan
- Professor, College of Medicine, Chang Gung University, Taoyuan, Taiwan
- weichi666@gmail.com
- Financial disclosure: None

To share an image, contact Manish Nagpal, MS, DO, FRCS(Edin), at drmanishnagpal@yahoo.com.

Note: Images should be 400 dpi or higher and at least 10 inches wide.

MARCH 2020 | RETINA TODAY 11