AAO Resident’s Day Case Report
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Title:
Iris-sutured IOL induced UGH+ complicated by high dose ASA, ugh indeed

Abstract:
Patient on high-dose aspirin therapy presents with right eye blurry vision. Exam findings lead to the diagnosis of UGH + syndrome secondary to iris-sutured IOL. This case highlights an unusual etiology exacerbated by ASA desensitization therapy.

I. Case History
   a. 66 y/o WM
   b. CC: Transient blurry vision for past 3+ months that lasts a few days then resolves
   c. PMHx:
      i. Samter’s Syndrome- clinical triad of asthma, aspirin sensitivity, and nasal/ethmoidal polyposis. This is a chronic form of asthma and environmental allergies that can be dangerously exasperated by aspirin or NSAID use. In an effort to reduce symptoms, patients with Samter’s are often exposed to increasingly high-dose ASA in an effort at desensitization.
      ii. DM, Obesity, HTN, and Hyperlipidemia,
   d. POHx:
      i. CE/PCIOL OU x 1995
      ii. Macular hole OD 2003- Treated with PPV and gas bubble
      iii. Retinal Detachment OD 2003- occurred 3 months post macular hole repair. Treated with scleral buckle and cryotherapy
      iv. Dislocated IOL OD 05/19/09- surgically retrieved and iris-fixated 07/02/09
      v. Partial thickness retinal tear OD – Found incidentally and treated with endolaser 07/02/09
   e. Meds:
      i. For Samter’s Syndrome: High dose ASA (1.3g daily), Xolair injections, Albuterol, Budesonide/Formoter, Flunisolide, Ipratropium, Montelukast
         1. Patient has been on an aspirin desensitization program for over one year, as well as immunotherapy, with an allergy specialist
         2. Previously treated with Sporanox
      ii. Others: Itraconazole, Lisinopril, Glyburide, Metformin, Simvastin,
II. Pertinent Findings
   a. Clinical-
      i. BCVA: OD 20/60 (eccentric viewing with isolated letters), OS 20/20
      ii. Pupils: 3->2, 4->3; no APD; 2+ reactivity OD, OS
      iii. EOMs/CFF: SAFE OU, Full to finger counting OD, OS
      iv. SLE OD: 3+ red blood cells, pigment on inferior endothelium, iridodonesis, PCIOL decentered inferiorly with iris sutures at 2:00 and 8:00 (see photo 1)
      v. IOP: OD 45, OS 24
      vi. Gonioscopy: Open to CBB 360, flat approach, no hyphema, hazy view inferior
      vii. DFE- Diffuse anterior vitreous heme
      viii. B-scan- No visible breaks, mild diffuse vitreous hemorrhage (see photo 2)
   b. Laboratory studies-
      i. Platelet count-
         1. 01/22/09 – 156 (x1000/uL)
         2. 12/11/09 - 145
         3. 04/28/11 - 132
         4. 08/03/12 - 150

III. Differential Diagnosis
   a. Ghost Cell Glaucoma, Possner-Schlossman, Recurrent RD/tear, Anemia/Anti-coagulant use, Neovascular Glaucoma, Schwartz Syndrome, CRVO, trauma, amaurosis fugax

IV. Diagnosis and Discussion
   a. This case is unique since there are no known case reports describing UGH occurring secondary to an iris-sutured IOL.
   b. Patient diagnosed with UGH caused by an iris-sutured IOL and likely exacerbated by high dose ASA use. Uveitis-glaucoma-hyphema syndrome was initially discovered in patients with ACIOLs, and is traditionally a clinical triad of anterior chamber reaction, increased IOP and hyphema occurring years after the original cataract surgery. While UGH is more commonly found with ACIOLs, it is also possible to develop UGH with PCIOLs. UGH associated with PCIOLs most often takes place when intracapsular lens positioning is not possible, resulting in mechanical irritation of the iris, ciliary body, and/or iridocorneal angle. This leads to a breakdown in the blood-anterior chamber barrier. Variations have been described, including: UGH+, which involves additional vitreous hemorrhage, and incomplete UGH, which can present with or without glaucoma. UBM reveals that while the syndrome can have a variable clinical appearance, all have an underlying abnormality of IOL positioning.
   c. An important systemic component of this case is the use of high-dose ASA for the management of the patient’s Samter’s Syndrome. While the ASA is vital the patient’s chronic asthma and allergies, it
complicates his ongoing ocular problems. However, to discontinue the desensitization process for ocular reasons would likely result in an increase in respiratory and allergy-related symptoms, and once stopped, the desensitization process would need to be reinitiated from the beginning.

V. Treatment and Management

a. After lowering the IOP in clinic, initial therapy of Xalatan qhs OD and prednisolone acetate qid OD was started. The patient was also instructed to sleep with his head elevated. Additional treatment of Alphagan bid OD was necessary at the 1-week exam following an IOP spike, as well as Atropine bid OD at 2 months following a recurrent anterior chamber bleed. Atropine was added with the intent of immobilizing the iris, and thereby lessening the tension on the iris suture.

i. Research shows correlation between systemic anti-coagulation and increased risk of ocular hemorrhage, including UGH. Damage to the iris, whether secondary to trauma or previous ocular surgeries has proven more likely to have multiple episodes of bleeding.

ii. While treatment with topical anti-hypertensives and anti-inflammatory medications can be a short-term solution, the only definitive fix is through surgical intervention. Rotation, removal or suturing (either to the iris or transcleral) of the IOL are all options. However, with this patient’s complicated systemic and ocular history, additional surgical intervention will likely have a high risk of further complications. The patient remains symptomatic as a result of the manifestations of Samter’s Syndrome and is unwilling to discontinue or reduce the aspirin desensitization program.

b. Bibliography


VI. Conclusion

a. A vital take home message from the case is the critical importance of a thorough patient history, not just of ocular but also systemic health.
This patient has many co-morbidities which complicate the clinical management of the problem. While surgical lens manipulation typically results in alleviation of UGH, the continued use of high-dose ASA, vital for the control of chronic allergic symptoms secondary to Samter’s Syndrome, would likely result in further ocular complications. A delicate balancing act is required among appropriate ocular management, knowledge of ongoing systemic co-morbidities, and the patient’s best interests.

Images:

Photo 1: Anterior segment revealing iris suture
Photo 2: B-scan revealing diffuse anterior vitreous hemorrhage.