Just eye pain? No, it's UGH syndrome

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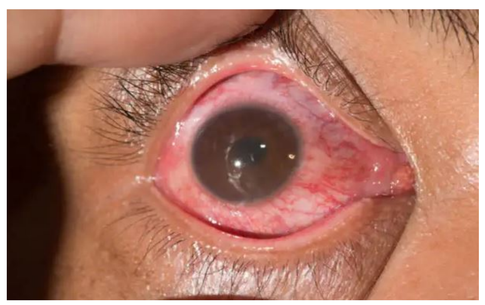
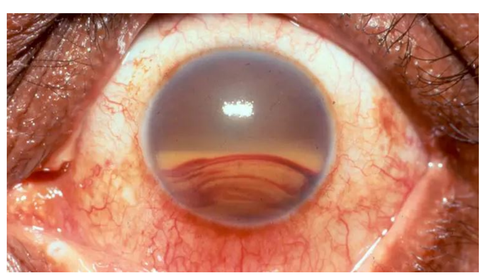
BACKGROUND

- Uveitis-Glaucoma-Hyphema (UGH) or Ellingson syndrome is a rare but serious complication that can occur after cataract or any intraocular surgery.
  - It is a result of the subluxation or malposition of the intraocular lens, damaging adjacent ocular structures and leading to microhyphema, hyphema, anterior chamber inflammation, and elevated intraocular pressures.[2,4]
- These patients often have uncomplicated cataract implants with episodes of blurry vision occurring weeks to months following surgery.
- If left untreated, UGH syndrome can result in nerve damage, macular edema, and permanent vision loss.
- Current treatment options include intraocular lens exchange, topical and systemic medication, and cyclophotocoagulation, the placement of a capsular tension ring to redistribute zonular tension and anti-vascular endothelial growth factor (anti-VEGF) therapy.
- Incidence of UGH is approximately 0.4 to 1.2.[3]





Images are not from patient case; they are from American Academy of Ophthalmology.[5,6]

SUMMARY OF CASE

- A 71-year-old female with end-stage renal disease on dialysis, diabetes mellitus type 2, was transferred for altered mental status after reportedly missing dialysis treatment the prior week.
- CT head without contrast showing no signs of intracranial bleed or stroke.
- Her encephalopathy improved the following morning, alerting the team to her right eye pain.
- Collateral information revealed patient had been complaining of eye pain and headaches earlier in the week and that patient underwent recent cataract surgery 2-3 months ago.
- Physical examination revealed right supraorbital edema with injected conjunctiva of the right eye, tearing, redness and difficulty opening her eyelid without significant pain
- Ophthalmology was consulted and found an elevated IOP in the 50-60s, 25% hyphema in the anterior chamber, with intact extraocular muscles, highly suggestive of UGH syndrome, given the patient's recent cataract surgery.
- Patient was started on IV acetazolamide, topical Combigan and dorzolamide OD which resulted in improved ocular pain, but no notable improvement in intraocular pressure.
- Given our current facility did not have access to ophthalmological surgical intervention, the decision was made to transfer the patient to another hospital to undergo evacuation of the hyphema.

DISCUSSION

- UGH syndrome typically presents weeks to months post cataract surgery, with ocular pain, photophobia, or persistent blurry vision.
- Treatments includes surgery or medical management, but surgery tends to have better outcomes.
- In this case we attempted to treat the patient medically given our limited access to local ophthalmological surgical intervention.
- The combination of IV acetazolamide, topical Combigan and dorzolamide OD alleviated the patient's ocular discomfort but in the end was ineffective at reducing her intraocular pressures.

CONCLUSIONS

- UGH syndrome is a rare but serious complication following cataract surgery and should be closely monitored in patients post-operatively.
- UGH syndrome can appear at any time, particularly in patients with predisposing factors such as pseudoexfoliation, prior vitreoretinal surgery, or trauma.
- In UGH syndrome, the results of surgical intervention are superior to that of conservative treatment, however, surgery does not guarantee resolution.[1]

REFERENCES

1. Armonaite L, Behndig A. Seventy-one cases of uveitis-glaucoma-hyphaema syndrome. Acta Ophthalmol. 2021 Feb;99(1):69-74. doi: 10.1111/aos.14477. Epub 2020 Jun 8. PMID: 32511897.
2. Apple DJ, Mamlis N, Loftfield K, Googe JM, Novak LC, Kavka-van Norman D, Brady SE, Olson RJ. Complications of Intraocular Lenses. A Historical and Histopathological Review. *Surv Ophthalmol.* 1984;29:1–54
3. Durr GM, Ahmed IIK. Intraocular Lens Complications: Decentration, Uveitis-Glaucoma-Hyphema Syndrome, Opacification, and Refractive Surprises. Ophthalmology. 2021 Nov;128(11):e186-e194. doi: 10.1016/j.ophtha.2020.07.004. Epub 2020 Jul 8. PMID: 32652203.
4. Zemba M, Camburu G. Uveitis-Glaucoma-Hyphaema Syndrome. General review. Rom J Ophthalmol. 2017 Jan-Mar;61(1):11-17. doi: 10.22336/rjo.2017.3. PMID: 29450365; PMCID: PMC5710046
5. Boyd, K., & Gregori, N. (2021, November 22). *What is uveitis*. American Academy of Ophthalmology. Retrieved March 7, 2022, from https://www.aao.org/eye-health/diseases/what-is-uveitis
6. Turbert, D., & Mendoza, O. (2021, May 21). *What is hyphema?* American Academy of Ophthalmology. Retrieved March 7, 2022, from https://www.aao.org/eye-health/diseases/what-is-hyphema