

# INTERESTING CASE WITH UGH SYNDROME

Apostolidou P.S., Ntisiou S., Misiou K., Loizou F., Lioura-Sofronidou A., Psimenidou E., Mousiou F., Tsironi S.

Department of Ophthalmology, General Hospital G.Papanikolaou, Exochi, Thessaloniki, Greece

**THERE IS NO CONFLICT OF INTEREST**

# ABSTRACT

**PURPOSE:** Presentation of an interesting case with uveitis-glaucoma-fibrosis syndrome.

**MATERIAL-METHOD:** A 79-year-old woman pseudophakic (IOL 3p sulcus OD, IOL in the bag OS ) bilaterally, pseudoexfoliation glaucoma under medication and Sjogren's syndrome. She was examined as an outpatient with reported pain in the right eye and blurred vision. From the clinical examination of the right eye, the patient has a 3p sulcus IOL with mild subluxation, anterior chamber cells (5+), hypertony and hyphema. UBM examination revealed iris-IOL contact. The patient was already receiving anti-inflammatory treatment for three months from a private clinic. Topical anti-inflammatory treatment was enhanced, as was glaucoma topical and systemic medication. In collaboration with the rheumatologist, a full systemic and immunological check was done again and the systemic treatment with p.o. cortisone was amplified.

**RESULTS:** Despite modifications to the local and systemic medical therapy, the uveitis, intraocular pressure, and hyphema failed to improve to a satisfactory degree. The immunological test results provided no additional informative data. In light of the ultrasound findings, a diagnosis of uveitis-glaucoma-hyphema (UGH) syndrome was established. We subsequently performed removal of the intraocular lens along with vitrectomy. A vitreous specimen was obtained for culture and PCR (HSV, CMV, VZV), with no pathogenic microorganism found.

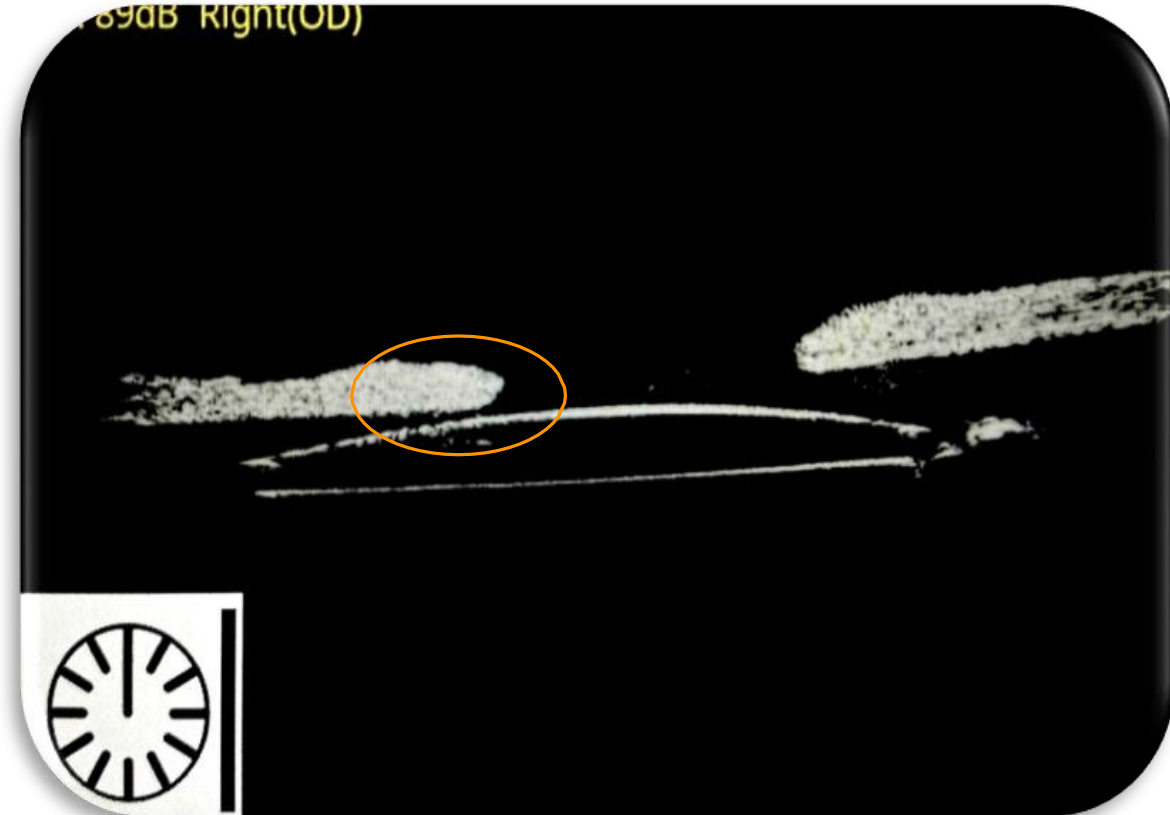
**CONCLUSIONS:** Recurrent chronic uveitis accompanied by hyphema and ocular hypertension in pseudophakic patients should prompt consideration of uveitis-glaucoma-hyphema (UGH) syndrome in the differential diagnosis. UGH syndrome constitutes a rare late postoperative complication that, if unresponsive to conservative medical management, necessitates surgical intervention.

# Case Presentation

- 79 year-old female presented with acute onset of pain and reduced vision in her right eye
- Past ocular history significant for primary open angle glaucoma and pseudophakia in right eye (posterior chamber intraocular lens implanted 10 years prior)
- On examination, intraocular pressure (IOP) OD was elevated at 35 mmHg
- Slit lamp exam revealed anterior chamber inflammation (2+ cells/flare), hyphema, phacodonesis, anterior IOL subluxation in right eye
- Gonioscopy showed open angles bilaterally with pseudoexfoliation material in both eyes
- Dilated fundus exam was significant for optic nerve cupping in right eye, but no posterior segment inflammation
- Medical History: Hypertension, Sjogren syndrome

# Diagnostic Evaluation

- Extended laboratory investigations including ACE, RF, QuantiFERON, HLA-B27, ESR, and autoimmune labs were **negative**
- Imaging with OCT showed **neuroretinal rim thinning** and **visual field defect**
- Anterior segment ultrasound biomicroscopy (**UBM**) demonstrated anterior IOL subluxation and confirmed clinical findings
- Goal of workup was to rule out infectious, inflammatory and autoimmune etiologies

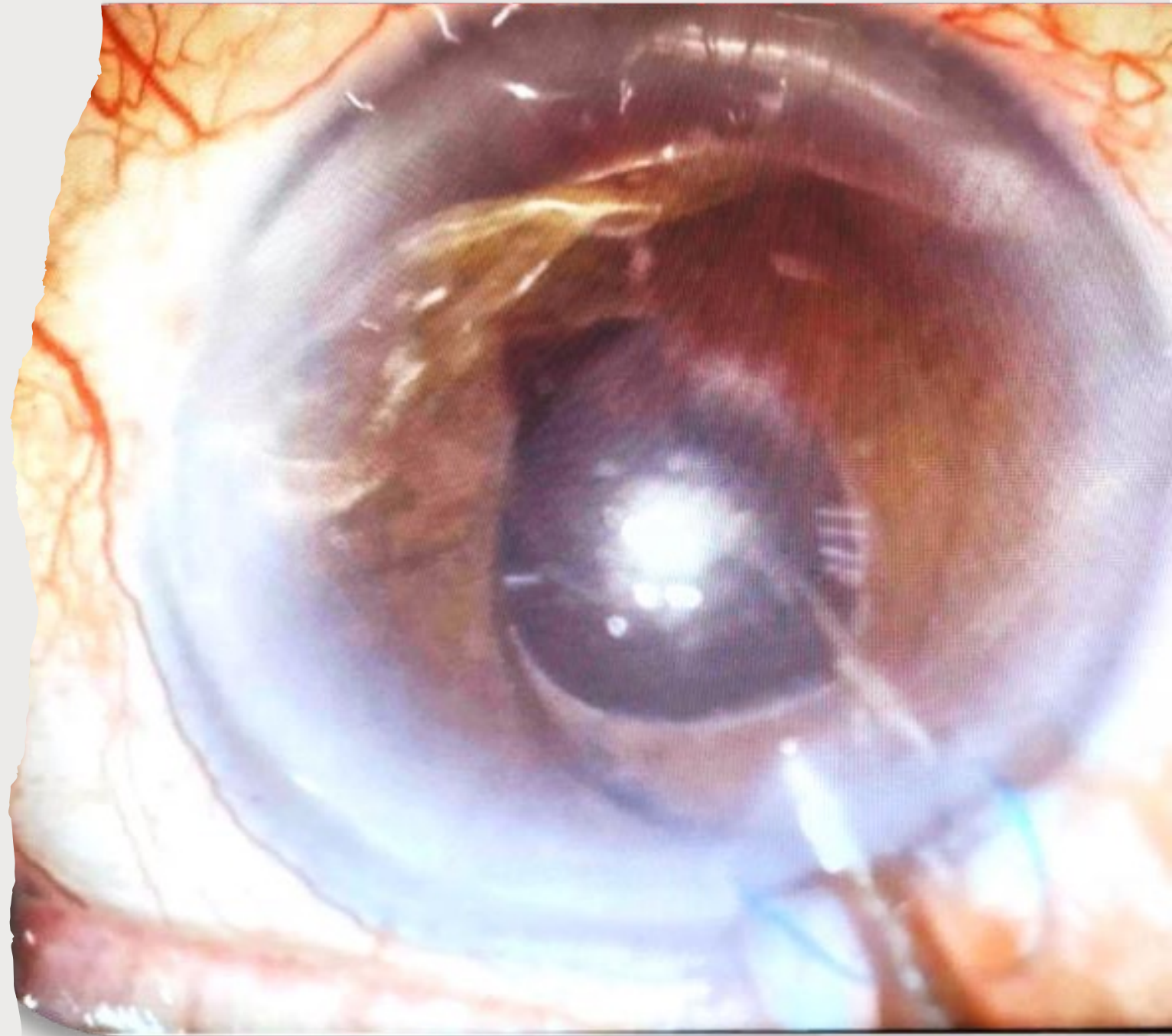


# Initial Management

- Topical steroid therapy initiated with dexamethasone eye drops to treat inflammation
- Oral acetazolamide started to reduce IOP
- After infectious and inflammatory lab workup was unrevealing, oral methylprednisolone was begun to control inflammation
- Despite above measures, **IOP remained persistently elevated**

# Surgical Intervention

- Due to persistent inflammation and elevated IOP, decision was made to proceed with IOL explantation and pars plana vitrectomy (PPV)
- Following surgery, **IOP decreased** to normal range and anterior chamber **inflammation regressed**
- Final diagnosis was consistent with **UGH syndrome**



# References

1. Goto H, Rao NA. Uveitis-glaucoma-hyphema syndrome. *Curr Opin Ophthalmol*. 2002;13(2):55-9.
2. Meier FM, Tufail A, MacIntosh PW, et al. Spontaneous chronic uveitis (Fuchs heterochromic cyclitis/uveitis syndrome) following neodymium: YAG laser capsulotomy for posterior lens opacification. *Lasers Med Sci*. 2009 Mar;24(2):193-8.
3. Tugal-Tutkun I. Uveitis-glaucoma-hyphema syndrome. *J Ophthalmic Vis Res*. 2010 Jan-Jun; 5(1): 64–67.
4. Collignon-Brach J. Uveitis-glaucoma-hyphema syndrome after phacoemulsification. *Curr Opin Ophthalmol*. 2001;12(1):10-14.
5. Georgakarakos ND, Dimitrios M, Athanasios IT. Uveitis-glaucoma-hyphema syndrome complicating phacoemulsification cataract surgery. *Clin Ophthalmol*. 2014; 8: 1159–1167.
6. Fechter W, Busse H, Memorandum M. [Uveitis glaucoma-hyphema syndrome after Nd:YAG laser capsulotomy]. *Klin Monbl Augenheilkd*. 2003 Aug;220(8):550-3. German.
7. Venkateswaran S, Galor A, Wang J, et al. Uveitis-glaucoma-hyphema syndrome: pathophysiology, prevention, and treatment modalities. *Expert Rev Ophthalmol*. 2017;12(5):337-344.