I. Case History
- Patient demographics: 70 year old African American Female
- Chief complaint:
  - Flashes of light worse in left eye than her right, and blurry vision in the right eye for the last year. Vision in the patient’s right eye had gotten worse since having cataract surgery 4 months prior.
- Ocular history:
  - History of high hyperopia OU, cataract surgery OD, five intravitreal injections OD since 09/2016 (patient unsure of reason for injections)
- Medical history:
  - (+) HTN, (+) Elevated Cholesterol
- Medications
  - Systemic: Atorvastatin, Lisinopril, Hydrochlorothiazide
  - Ocular: Gentamicin drops OD QID, Prednisolone Acetate drops OD QID
- Family Ocular and Medical History: Non-contributory

II. Pertinent findings
- Clinical
  - Entering corrected visual acuities: OD: FC-1', OS: 20/400 (NIPH OD, OS)
  - Pupils: OD, OS: 2mm in light and dark, with 1+ sluggish reaction to light
  - IOP: 18mmHg OD, OS
  - Confrontation VF: OD: Central scotoma, OS: Superior temporal defect
  - Motility: Normal, full versions and ductions OD, OS
  - SLE: OD: PC-IOL with clear capsule, OS: 2+ NS and cortical cataract
  - Fundus Exam:
    - OD: Total exudative RD, extensive RPE changes and atrophy secondary to longstanding RD
    - OS: Inferior exudative RD, extensive RPE changes and atrophy secondary to longstanding RD
- Other
  - B-Scan: Complete RD OD, Inferior RD OS
  - Fluorescein Angiography: Leakage confirming clinical DFE findings, OU
  - OCT: RPE thickening with sub retinal fluid OD, OS

III. Differential diagnosis
- Primary
  - Uveal effusion syndrome secondary to high hyperopia
- Others
  - Choroidal melanoma, Vogt-Koyanagi-Harada disease, choroiditis, posterior scleritis, primary or metastatic tumor

IV. Diagnosis and discussion
Uveal effusion syndrome (UES) is a rare condition which usually occurs in hyperopic or nanophthalmic eyes with thicker than normal scleral and choroidal tissue. These tissue abnormalities presumably contribute to vortex vein obstruction, impair diffusion of fluid out of the suprachoroidal space and can result in serous choroidal and serous retinal detachments.

Primary features: High hyperopia, short axial length (21mm or less), peripheral or complete chorioretinal detachments, leopard-spot fundus, lack of inflammation or severe pain.

UES diagnosis requires that effusions occur as a primary event, rather than secondary to another cause (e.g. hypotony, scleritis); therefore, UES is a diagnosis of exclusion.

V. Treatment, management

- Sclerotomy or sclerectomy is indicated for serous subretinal fluid involving or threatening the fovea.
- Conservative treatment, for isolated posterior UES without peripheral choroidal effusion, includes carbonic anhydrase inhibitors (CAIs) and topical prostaglandin analogues (PAs).
- This patient had exudative retinal detachments in both eyes and was treated with full thickness inferior temporal and superior temporal scleral windows (sclerectomies) in each eye, and the patient’s vision improved to 20/200 in each eye when tested one month after surgery.
- The patient was scheduled for a follow-up evaluation with DFE in one month.

VI. Conclusion

- UES is rarely accompanied by significant inflammation, but it is commonly found in relation to nanophthalmos and thickened scleral tissue.
- UES is commonly misdiagnosed initially, but it is important to consider this posterior segment condition as a differential due to its marked response to surgical treatment rather than medication or observation options, especially when peripheral choroidal effusion is present.

Sources: