

Mariam Elias

Traditional Class of 2024

Hometown: North Arlington, NJ

Undergrad: Rutgers University

Major: Biology

Favorite Subject: Contact Lens

Optometry Goal: Own my own practice

Favorite food: pizza & pasta

Hobby: visiting new places

Last Show I binged: Bling Empire



Navi Hehar

Class of 2016, Michigan College of Optometry

Hometown: Canton, MI

Optometry School: Michigan College of Optometry

Residency: Primary care/ocular disease at
Cleveland VAMC

Favorite Diagnostic Instrument: OCT

Hates: Heat and humidity

Hobby: Learning new skills - currently rollerblading
and how to spike a volleyball

Don't Be Flaky in Your Work-up of Pseudoexfoliation

Demographics

76 yo male, Ukrainian

Chief complaint: Evaluation of Pseudoexfoliative Glaucoma

History of present illness

Character/signs/symptoms: Referred by outside optometrist to evaluate for pseudoexfoliative glaucoma

Location: OU

Severity: unknown

Nature of onset: Diagnosed with pseudoexfoliation syndrome at Wills Eye previously

Duration: initial diagnosis 3 years ago

Frequency: N/A

Exacerbations/remissions: N/A

Relationship to activity or function: N/A

Accompanying signs/symptoms: never been on glaucoma drops

Patient ocular history

Pseudoexfoliation syndrome OU and Cataracts OU

Family ocular history

Unremarkable; no family history of glaucoma

Patient medical history

Hypertension

Medications taken by patient

25 mg Losartan TID

Patient allergy history

NKDA

Family medical history

Non-contributory

Review of systems

Constitutional/general health: denies

Ear/nose/throat: Cardiovascular: denies

Pulmonary: Endocrine: denies

Dermatological: denies

Gastrointestinal: denies

Genitourinary: denies

Musculoskeletal: denies

Neurologic: denies

Psychiatric: denies

Immunologic: denies

Hematologic: denies

Mental status

Orientation: oriented to person, place, and time

Mood/Affect: normal

Clinical findings

BVA:	<u>Distance</u>	<u>Near</u>
	OD: 20/25 PH: 20/20	0.4/0.5mm
	OS: 20/25 PH: 20/20	0.4/0.5mm
Pupils: PERRL (-) APD OU		



SALUS
UNIVERSITY
The Eye Institute

EOMs: FROM OU

Confrontation fields: FTFC OD and OS

Hirschberg: Symmetric

Subjective refraction:	<u>VA Distance</u>	<u>VA Near</u>
OD: +0.25 -0.75 x 074	20/20	0.4/0.4M
OS: -0.25 -1.00 x 118	20/20	0.4/0.4M
ADD: +2.75		

Slit lamp:

Lids/lashes/adnexa: normal OU

Conjunctiva: white and quiet OU

Cornea: normal endothelium, epithelium, stroma and tear film OU

Anterior chamber: deep and quiet OU

Iris: flat w/ pseudoexfoliative material around the pupillary margin OD>OS (-) TIDs OU

Lens: 1+ NS, bulls-eye pattern of pseudoexfoliative material on the anterior lens capsule OD>OS upon dilation

Vitreous: clear OU

IOPs/method: Goldmann: 14/15 mmHg

Gonioscopy: Open to CB 360 degrees with patchy-pigmented TM greatest inferiorly OU

Fundus OD:

C/D: 0.40h/0.40v with no RNFL thinning

macula: flat, no hemorrhages, exudates, pigmentary changes, no edema

posterior pole: clear

periphery: No holes, tears, or retinal detachments x 360

Fundus OS:

C/D: 0.45h/0.45v with no RNFL thinning

macula: flat, no hemorrhages, exudates, pigmentary changes, no edema

posterior pole: clear

periphery: No holes, tears, or retinal detachments x 360

Case Images:

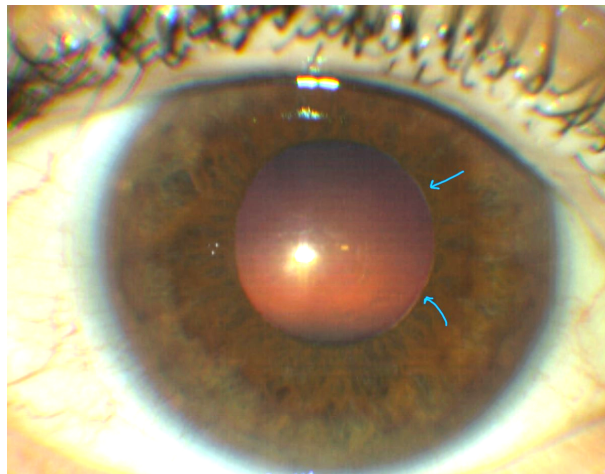


Image 1: Anterior segment photo of the right eye displaying peri-pupillary accumulation of white fibrillar material from 1:00 to 5:00 (blue arrows)

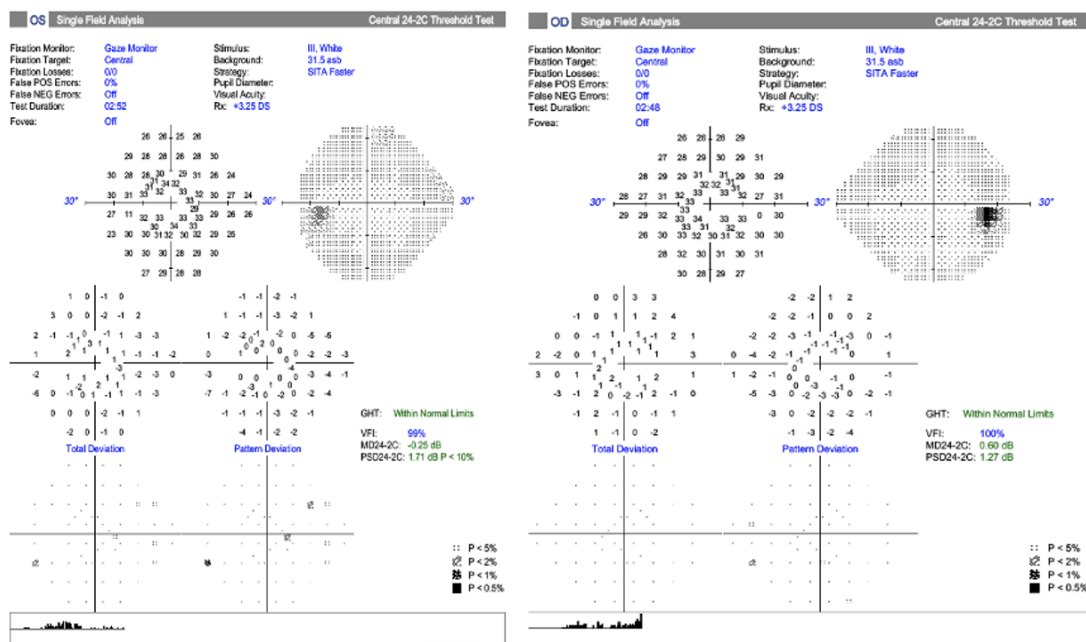


Image 4: HVF 24-2C of left eye and right eye, respectively indicating no glaucomatous defects.

Case Management Summary

Assessment 1: Open Angle with Borderline Findings, High Risk, Bilateral

- *Secondary open angle glaucoma suspect in the setting of pseudoexfoliation syndrome OD>OS
- *IOP today: 14/15 Tmax: unknown
- *Gonio: open with patchy pigment OD, OS
- *RNFL: no thinning or glaucomatous changes noted OD, OS
- *GCA: no glaucomatous thinning OD, OS
- *VF 24-2c: clear with no glaucomatous defects OD, OS
- *(-)family history

Plan 1:

- *Patient educated on today's findings and the importance of follow up compliance to prevent vision loss as glaucoma is a potentially blinding disease.
- *No treatment indicated today however, the patient was educated on the risk of developing glaucoma given the presence of pseudoexfoliation.
- *Findings communicated with PCP
- *Monitor in 6 months with IOP check and repeat testing to monitor for glaucomatous conversion.

Assessment 2: Pseudoexfoliation of the Lens Capsule, Bilateral

- *Pseudoexfoliation of anterior lens capsule OD, OS
- *Not affecting visual acuity or activities of daily living

Plan 2:

*Surgical intervention not indicated.

*Monitor in 6 months with IOP check and repeat testing to monitor for glaucomatous conversion.

Case Pearls

- Pseudoexfoliation (PXF) is a systemic condition that is characterized by the deposition of fibrillar material within various body tissues, most notably, it can be found in the heart, liver, gallbladder, kidneys, and other areas.
 - Because of this, PXF has been linked with dementia, hearing loss, cerebrovascular, cardiovascular, and kidney disease.
 - As eyecare providers, we must consider these systemic complications and alert the primary care physician of its existence and any systemic correlations. This may also involve referrals to other specialists including cardiologists for complete care.
- Pay careful attention when evaluating anterior segment structures since pseudoexfoliation is often subtle and easily overlooked.
- One area where PXF material accumulates is on the pupillary margin. These patients may also present with iris atrophy and transillumination defects. After dilation you will notice a bulls-eye pattern of pseudoexfoliative material on the anterior lens capsule that can easily be missed in an undilated patient. Also keep in mind that these findings commonly present asymmetrically, and may be present unilaterally or bilaterally.
- Patients who present with PXF need to be monitored regularly since pseudoexfoliation is the most common identifiable risk factor associated with open-angle glaucoma. In fact, it is the leading cause of secondary open angle glaucoma worldwide where up to 50% of patients with pseudoexfoliation syndrome will develop pseudoexfoliation glaucoma (PXG).
- Lastly, pseudoexfoliative material can be deposited on the lens zonules causing zonular weakness. This can result in lens subluxation and/or a forward shift of the lens resulting in a shallow anterior chamber depth. Zonular weakness can present challenges during cataract surgery therefore it is important to communicate the presence of exfoliation to the surgeon.

