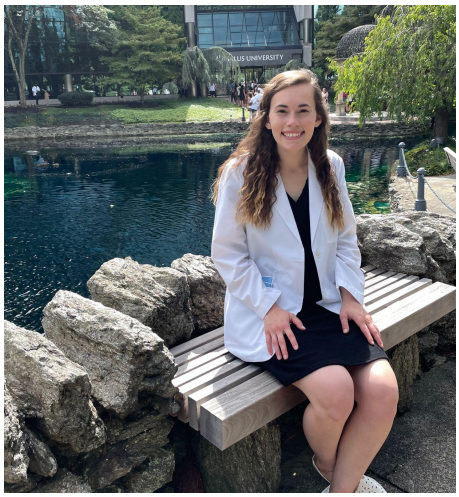
SALUS UNIVERSITY
The Eye Institute

Pennsylvania College of Optometry

The Focal Point

August 2023 Edition



Allison Clower

Traditional Class of 2024

Hometown: Harriman, TN
Undergrad: University of Tennessee at Chattanooga
Major: Biology; Minor Criminal Justice
Favorite Subject: Posterior Segment Disease
Optometry Goal: Work-life balance + VOSH service trips
Favorite food: Pizza
Hobby: Rock climbing and collecting stickers from new places
Last Show I binged: Manifest

Bhawan Minhas

Class of 2013, Illinois College of Optometry

Hometown: Calgary, Alberta Canada
Undergrad: University of Calgary
Major: Biological Sciences; minor: Primatology
Favorite Hype Up Song: Titanium by Sia/David Guetta
Chosen form of Stress Relief: boxing and hiking with my sidekick - Luna, the German Shepherd
Fun fact: I am currently at my sister's wedding (left side twin in picture) back home in Canada as you read this and probably ugly crying :)

Blurry Vision, Pattern Dystrophy, & Retinoschisis - Oh My!

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Demographics

76 yo, Black female, retired

Chief complaint: follow up for pattern dystrophy OU

History of present illness

Character/signs/symptoms: blurry vision
Location: distance and near OU
Severity: mild
Nature of onset: gradual
Duration: longstanding
Frequency: intermittent
Exacerbations/remissions: none
Relationship to activity or function: none
Accompanying signs/symptoms:
(+) burning, dryness, itching, tearing, sinus headache
(-) flashes, floaters, LOV, pain, ocular headache

Patient ocular history

(-) eye injury, eye trauma, glaucoma
(+) bifocal specs
(+) cataract sx OU
(+) posterior capsule opacification OU
(+) pattern dystrophy OU
(+) retinoschisis OD

Family ocular history

Mother: none
Father: none

Patient medical history: COPD, Hypertension, Osteoporosis, Osteoarthritis, Hypercholesterolemia, Pre Diabetic (HbA1c 5.8%), Stroke 2018 (left side affected, speech affected, vision was unaffected)

Medications: Albuterol, Breo Ellipta, Incruse Ellipta, Ipratropium-Albuterol, Trelegy Ellipta, Ventolin, Nifedipine ER, Losartan, Alendronate, Hydroxyurea, Meclizine, Rosuvastatin, Aspirin, Ibuprofen

Patient allergy history: None

Family medical history

Mother: none
Father: HTN

Review of systems

Constitutional/general health: denies
Ear/nose/throat: denies
Cardiovascular: denies
Pulmonary: denies
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 (cc):

	Distance		Near
OD:	20/25-2	PH: NI	0.4/0.5M
OS:	20/40	PH: 20/25-2	0.4/0.6M
OU:	20/25-2		0.4/0.5M

Pupils: PERRL (-) APD

EOMs: Full and Smooth

Confrontation fields: constriction sup nasal OD, FTFC OS

Hirschberg: symmetric

Subjective refraction:

	VA Distance	VA Near
OD: +1.75-1.50x110	20/25	0.4/0.4M
OS: +1.50-1.75x080	20/20-1	0.4/0.4M
+2.50 ADD		

Slit lamp:

Lids/lashes/adnexa: dermatochalasis, clear lashes, mild inferior and superior capped glands OU

Conjunctiva: bulbar conj white and quiet, palpebral conj clear OD; bulbar conj white and quiet, palpebral conj clear, inferior melanosis, inferior inclusion cyst OS

Cornea: normal endothelium, epithelium, tera film and arcus 360 OU

Anterior chamber: deep and quiet, no cells or flare OU

Iris: inferior wedge nevus OD; normal OS

Lens: PCIOL centered OU; 1+ PCO OD, trace PCO OS

Vitreous: syneresis OU

IOPs/method: 12/unable GAT due to patient cooperation
11/11 iCare

Fundus OD:

C**/D:** 0.5/0.5

Macula: parafoveal pigment deposits consistent with pattern dystrophy

Posterior pole: clear, normal vessels

Periphery: no breaks or RDs, retinoschisis inferior

Fundus OS:

C/D: 0.5/0.5

Macula: parafoveal pigment deposits consistent with pattern dystrophy

Posterior pole: clear, normal vessels

Periphery: flat and intact 360, no breaks or RDs

Blood pressure: 126/74 mmHg RAS at 12:40 PM

Case Images:

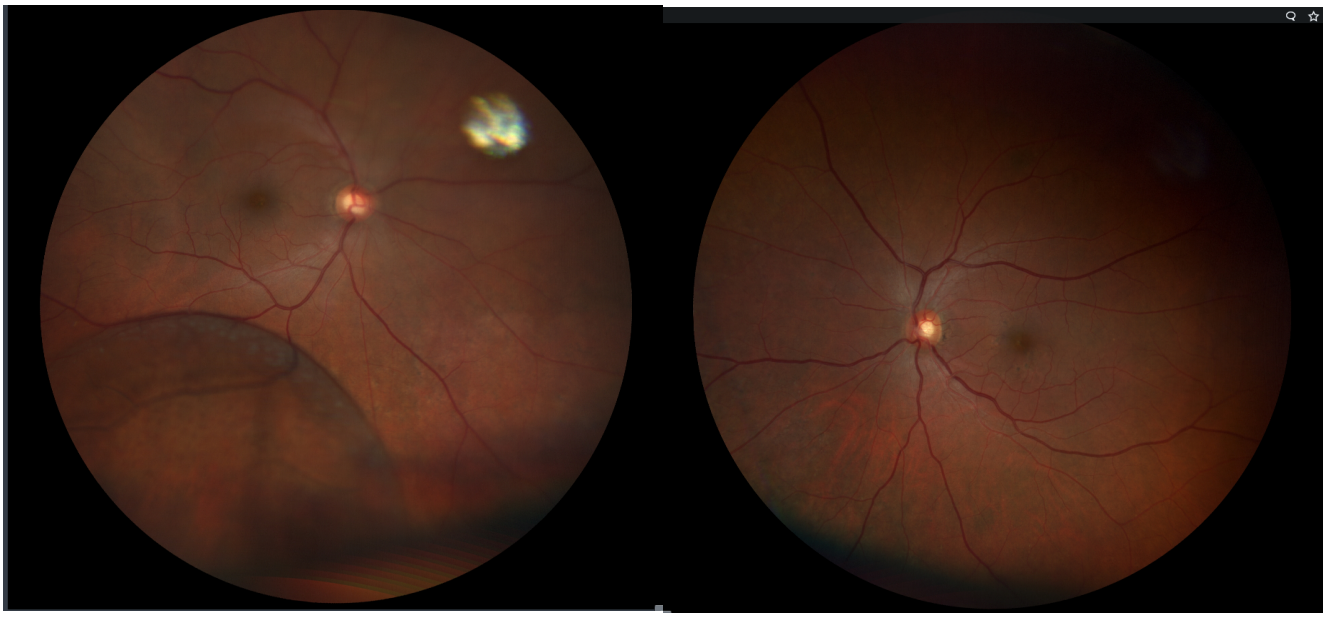

Image 1: Colored fundus photos OD and OS. Of note: retinoschisis lesion inferior temporal and artifact superior nasal OD.

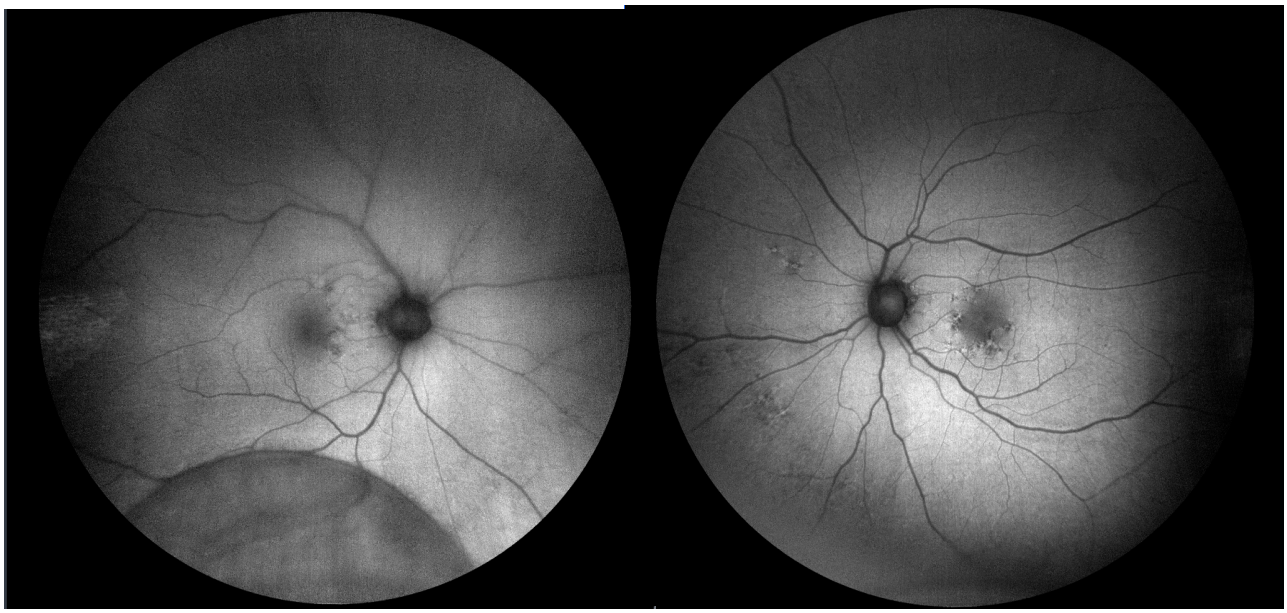

Image 2: Fundus autofluorescence (FAF) photos OD and OS. Of note: parafoveal pigment deposits consistent with pattern dystrophy in maculae OU and retinoschisis inferior temporal OD.

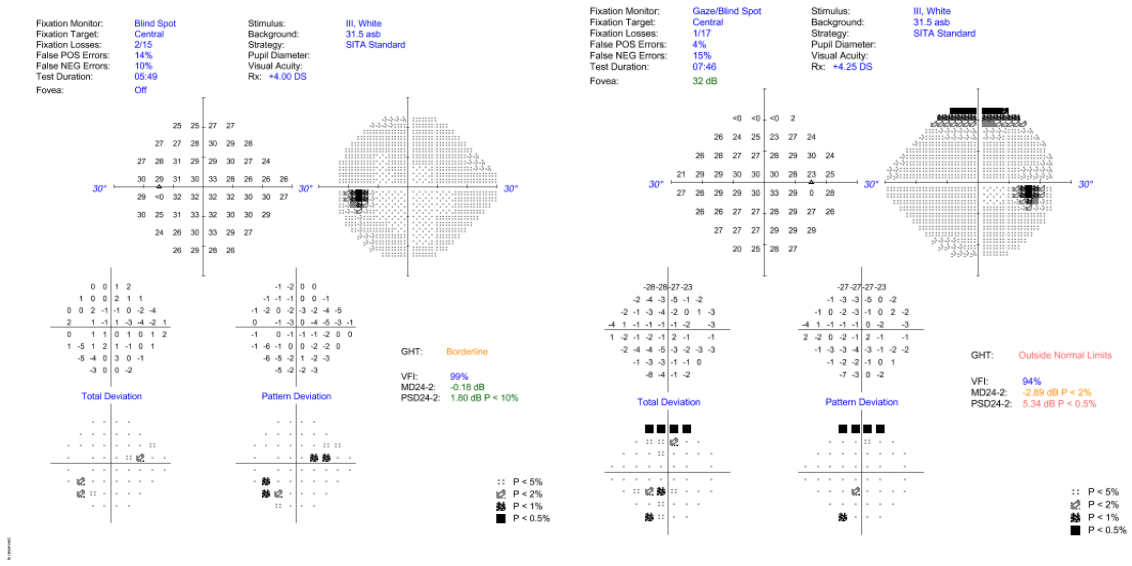

Image 3: Humphrey visual field 24-2 OU. Of note: superior defect consistent with presentation of retinoschisis lesion inferior temporal OD.

Case Management Summary

Assessment 1: Pigmentary retinal dystrophy, bilateral

Examination revealed pattern dystrophy OS>OD
-Fundus Photos: updated today
-FAF: undated today
-Philadelphia Retina Associates consult 5 months ago
-BCVA: 20/25 OD, 20/20 OS

Plan 1: Patient was educated on exam findings and stable nature of condition compared to fundus photos from 1 year ago. Performed baseline FAF imaging today which better visualizes dystrophy and rules out active progression of photoreceptor or RPE damage with no findings of active hyperfluorescence OU. Follow up with retina indicated for 9 months based on previous visit; appt confirmed for patient. RTC 1 year CEE, sooner if needed.

Assessment 2: Retinoschisis of right eye

Examination revealed inferior retinoschisis OD close to inf temp arcade
-Fundus Photos: updated today
-Philadelphia Retina Associates consult 5 months ago - no treatment indicated
-Question of superior constriction on CVF today OD confirmed with HVF 24-2 OD

Plan 2: Patient was educated on exam findings. Educated on the stable nature of condition. Baseline HVF 24-2 performed in order to document lesion extent and to help monitor for progression. Follow up with retina indicated for 9 months based on previous visit; appt confirmed for patient. RTC 1 year CEE, sooner if needed.

Assessment 3: Other secondary cataract, bilateral

Examination revealed posterior capsular opacification OD>OS (1+ OD, trace OS)
-Patient asymptomatic
-BCVA: 20/25 OD, 20/20 OS

Plan 3: Patient was educated on exam findings. Educated on natural history of posterior capsule opacification. No YAG indicated at this time. Monitor yearly.

Assessment 4: Hypermetropia, bilateral

Refraction revealed compound hyperopic astigmatism OD, mixed astigmatism OS w/ presbyopia OU
-BCVA: 20/25 OD, 20/20 OS

Plan 4: Updated bifocal Spec Rx released for full time wear. Patient was educated on minor changes from habitual Rx, no adaptation problems expected. Return to clinic 1 year comprehensive eye exam (CEE).

Assessment 5: Presbyopia, bilateral

See A&P #4

Case Pearls

Pigmentary Pattern Dystrophy: Pattern dystrophies are usually inherited with an autosomal dominant inheritance pattern, often presenting in the fourth and fifth decade of life. They are slowly progressive and have various patterns of pigment deposition within the macula. The primary layer of the retina affected is the retinal pigment epithelium (RPE). Typically, they are associated with a good visual prognosis; however, there is a risk for progressive central vision loss due to location of pigment deposition. Pattern dystrophies in and around the macula are often confused with age-related macular degeneration when presenting in the elderly. Distinguishing pattern dystrophies from AMD requires further workup, evaluation, and follow-up. FAF, fluorescein angiography, and definitive genetic testing can help distinguish between the two. Additionally, FAF and electrodiagnostic testing (EOG/ER) may provide additional information in order to help stage and define a pattern dystrophy. FAF can also aid clinicians in determining prognosis for progression via the presence of hyperfluorescence on imaging which would be indicative of lipofuscin accumulation and active photoreceptor/RPE damage.

Retinoschisis: Retinoschisis is most commonly found in two retinal locations: inferior temporal and superior temporal. There are two types of retinoschisis: juvenile (X-linked inheritance most common in males affecting the macula) and senile (not inherited, occurring with aging, and found in the periphery). Typically bilateral (50-75% of cases), the peripheral condition is thought to be secondary to splitting of the outer plexiform layer causing an absolute field defect corresponding to the area of elevation. This lesion is thought to arise from coalescing microcysts found in cystoid retinal degeneration; thus cystoid is a risk factor for retinoschisis. The lesion often presents as a bullous elevation in the peripheral retina requiring outer and inner retinal layer breaks to be ruled out. Unlike a retinal detachment, the retina is immobile in a retinoschisis which can aid in diagnosis; this can be evaluated clinically during dilated fundus evaluation and on B-scan imaging. Visual field testing may show an absolute scotoma corresponding to the area of the retinoschisis which may present itself during confrontation visual fields if the clinician is astute.