PEARLS IN NEURO-OPHTHALMOLOGY

Amy S. Babiuch, MD
Cole Eye Institute
Cleveland Clinic

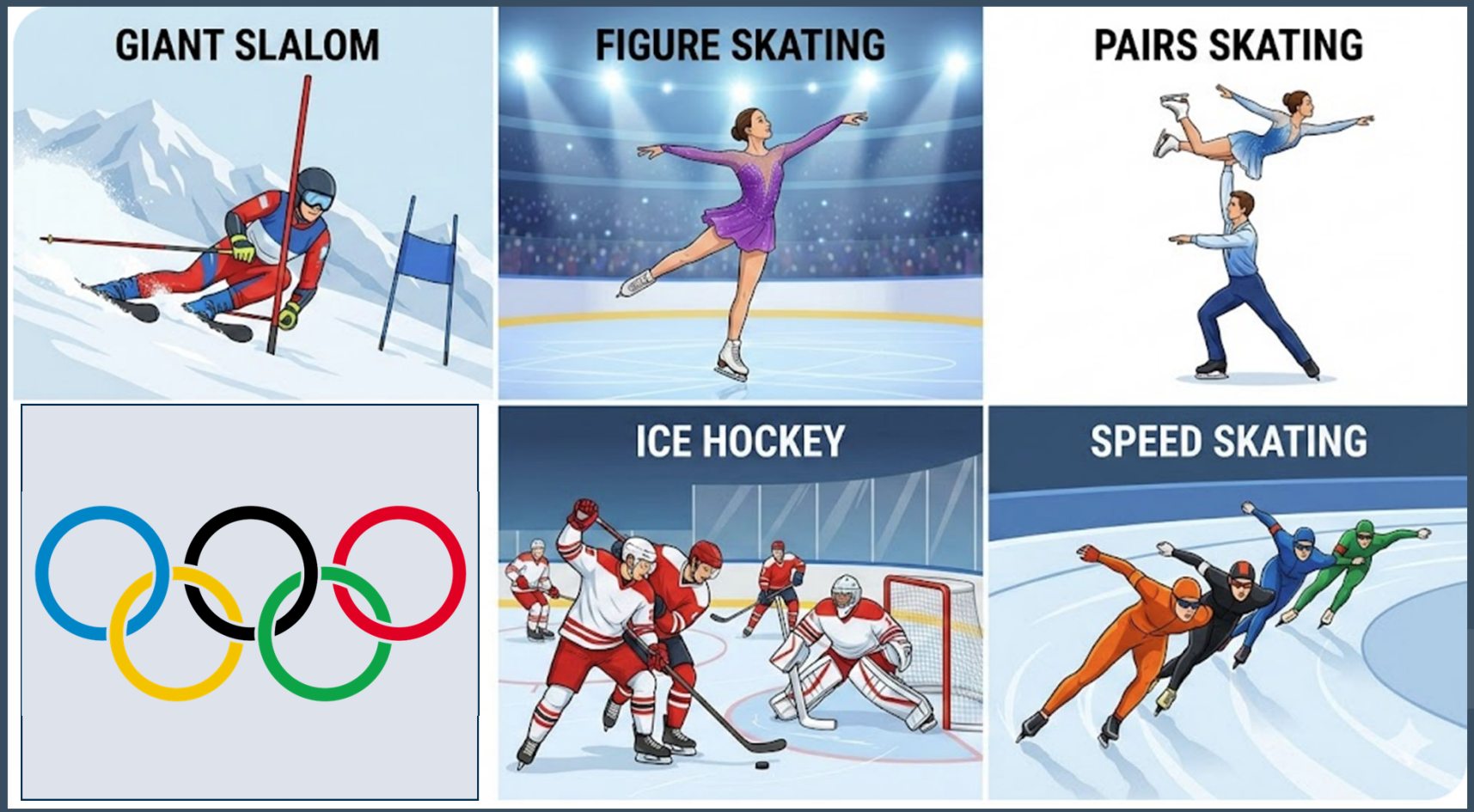
Financial Disclosures

- Genentech: Advisor & Research

Personal Image Adaptation: https://www.nbcuniversal.com/article/how-watch-milan-cortina-2026-olympic-winter-games-across-nbcuniversal. Accessed Feb 2026

WHAT WILL YOUR MEDAL COUNT BE...

Image adapted from: https://nationaljeweler.com/articles/14108-2026-winter-olympic-medal-design-symbolizes-unity. Accessed Feb 2026

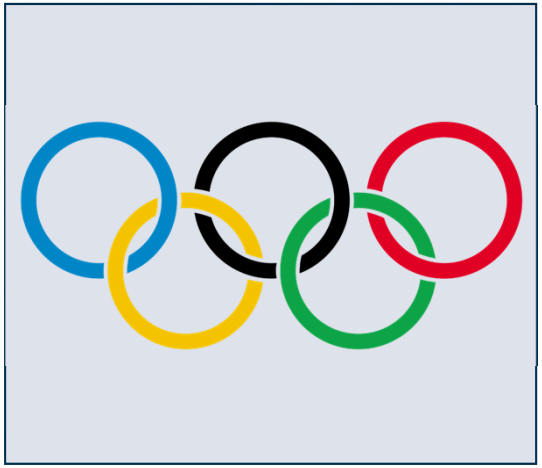


AI Image generated by Gemini 3, Google, Feb 2026.

GIANT CELL ARTERITIS

UNILATERAL DISC EDEMA

BILATERAL DISC EDEMA



HEADACHE

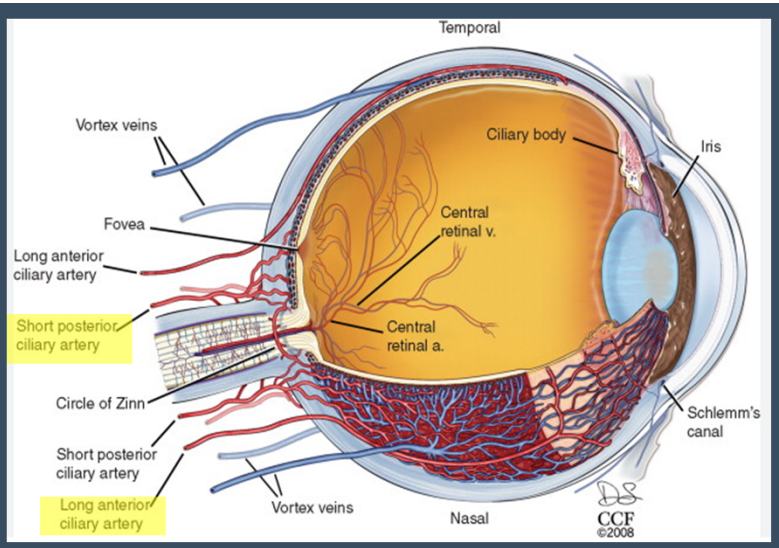
CRANIAL NEUROPATHIES

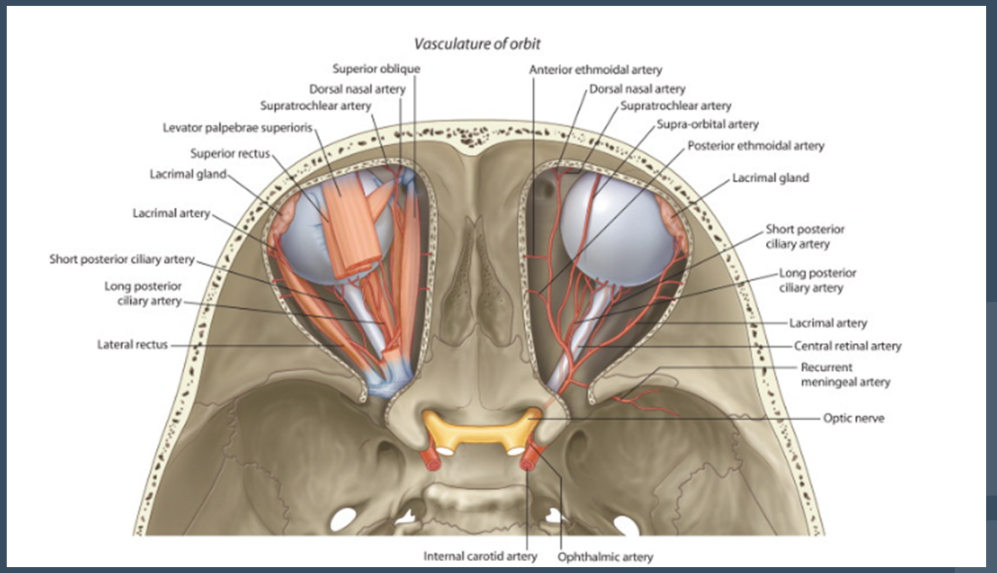
AI Image generated by Gemini 3, Google, Feb 2026.

EVENT 1: GCA

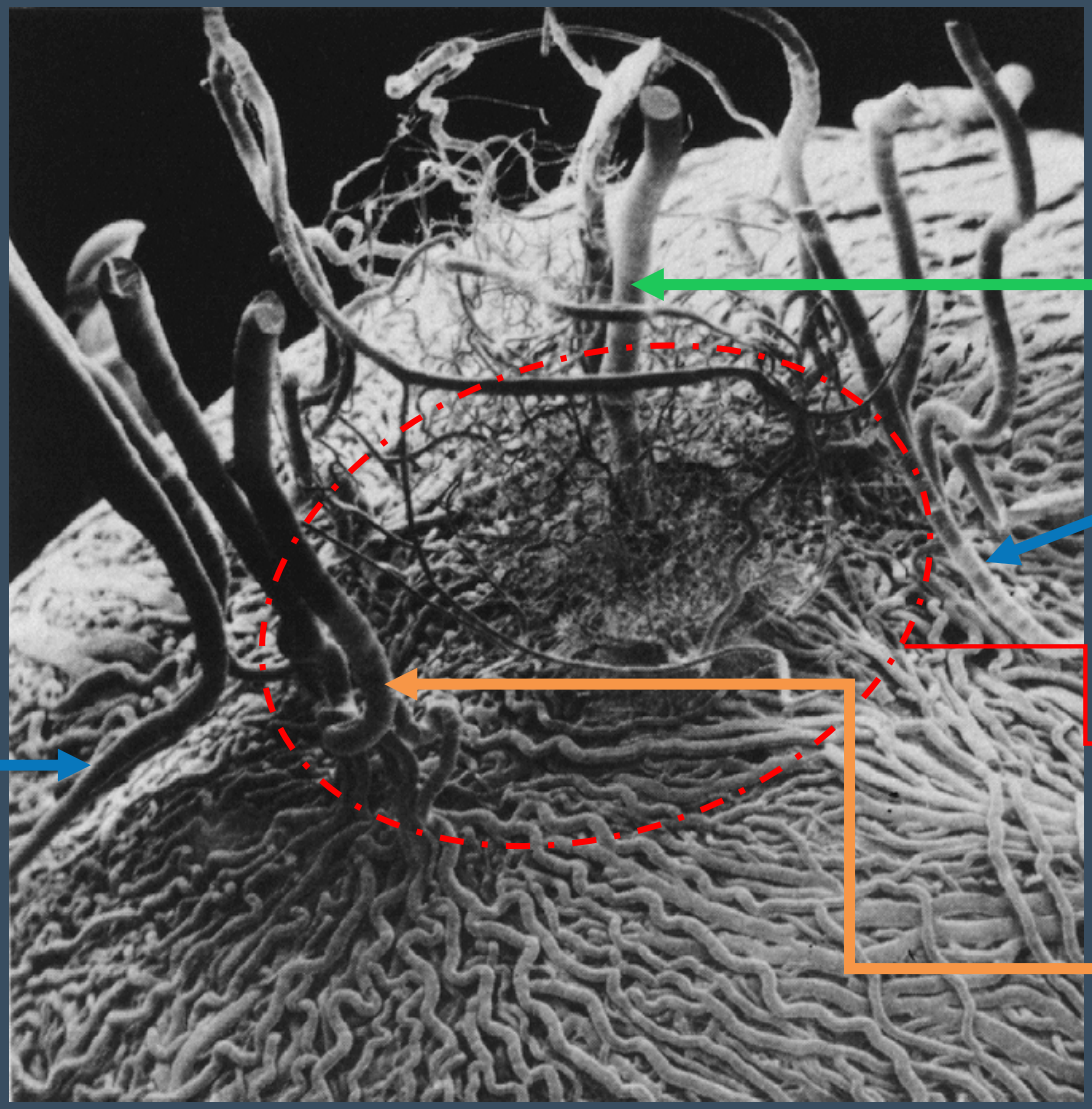
AI Image generated by Gemini 3, Google, Feb 2026.

- GCA has a predilection for:
  - Superficial temporal artery
  - Ophthalmic artery
  - Posterior ciliary arteries
  - Vertebral arteries



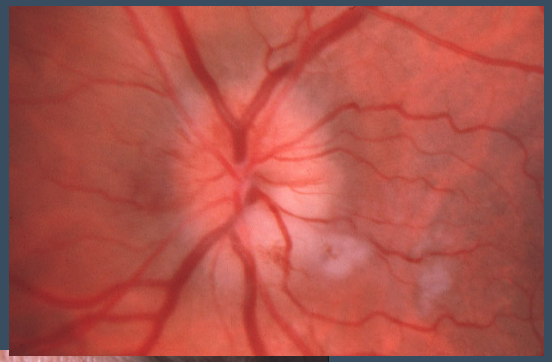


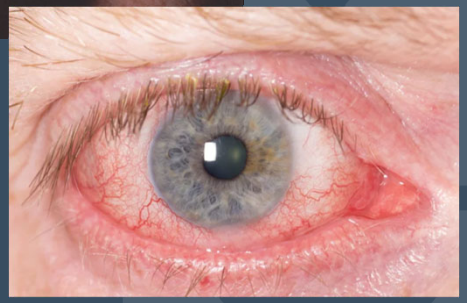
ScienceDirect. (n.d.). *Ophthalmic artery - an overview*. Retrieved May 7, 2025, from https://www.sciencedirect.com/topics/neuroscience/ophthalmic-artery
ScienceDirect. (n.d.). *Ophthalmic artery - an overview*. Retrieved May 7, 2025, from https://www.sciencedirect.com/topics/neuroscience/ophthalmic-artery


Central Retinal Artery
Long Posterior Ciliary Artery
Long Posterior Ciliary Artery
Annulus of Zinn-Haller
Short Posterior Ciliary Artery

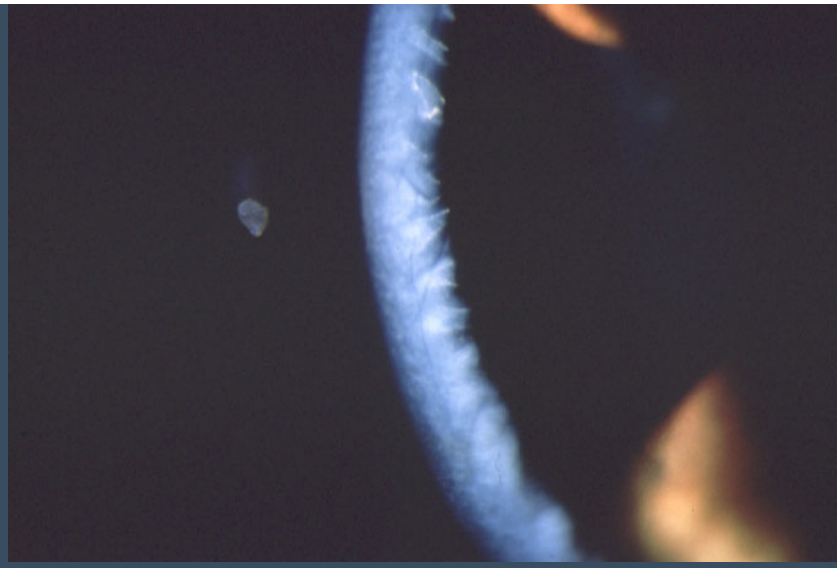
Ophthalmic *Symptoms* of GCA

- Transient Vision Loss
  - Preceded by amaurosis x 7-10 days in 30%
- Diplopia (double vision)
  - May involve multiple muscles
  - May involve the pupil
- Red painful eye
  - Often accompanied by blurry vision

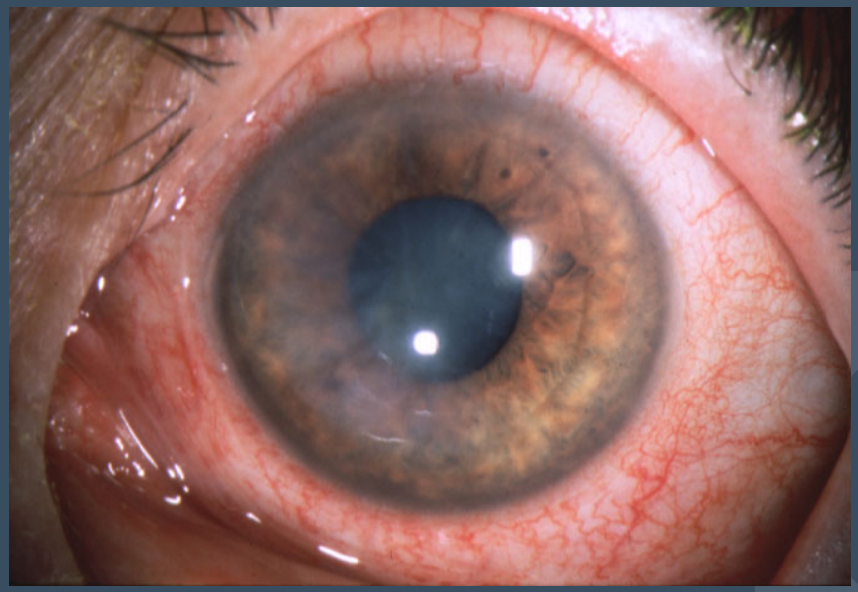




Anterior Segment Ischemia



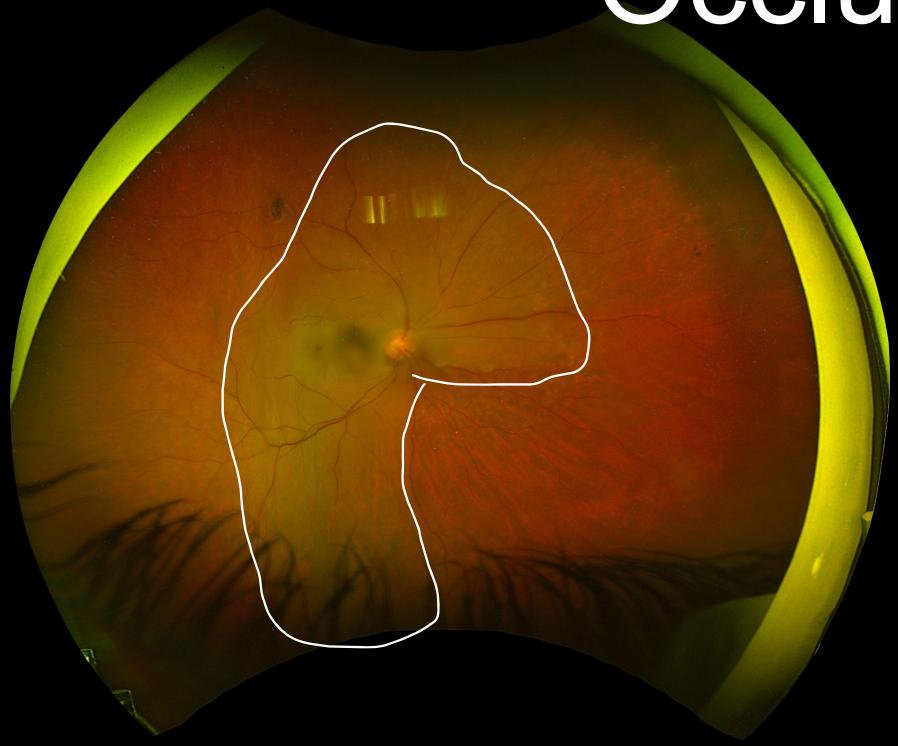
- Hyperemic conjunctiva and sclera
- Cloudy cornea
  - +/- edema
  - +/- folds
- Hypotony (low intraocular pressure)
- AC reaction



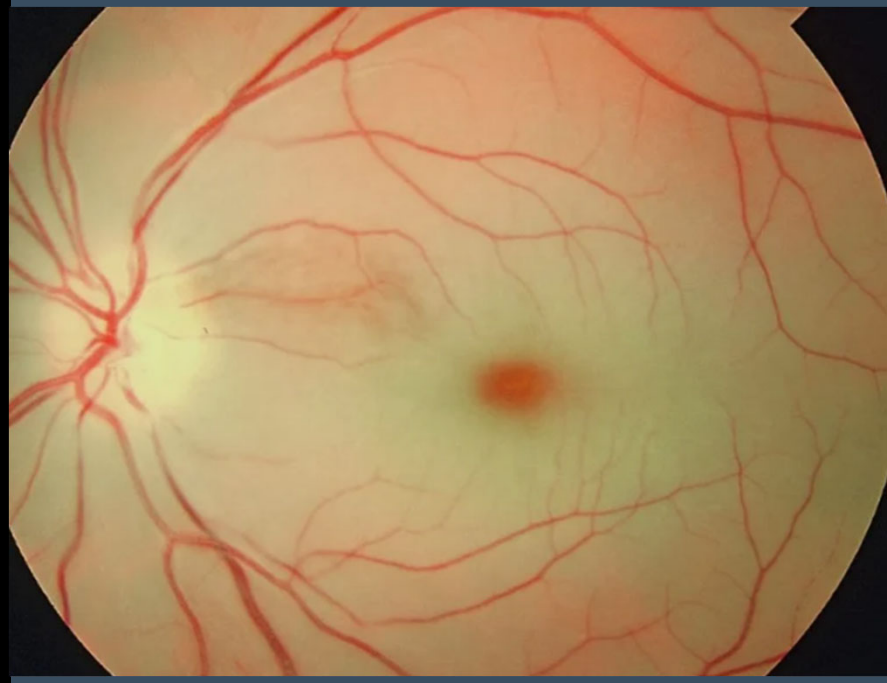
Posterior Ischemia
Retina, Choroid, Optic Nerve)

- Disc edema, disc pallor
- Retinal whitening, box-carring of arterioles
- Cotton wool spots
- Retinal hemorrhages
- Patchy choroidal filling on FA and ICG
- PAMM (paracentral acute middle maculopathy) on OCT
  - Retinal hyperreflectivity on OCT
  - Thinning of inner retina and ganglion cell layer on OCT

Posterior Ischemia: Retinal Artery Occlusion

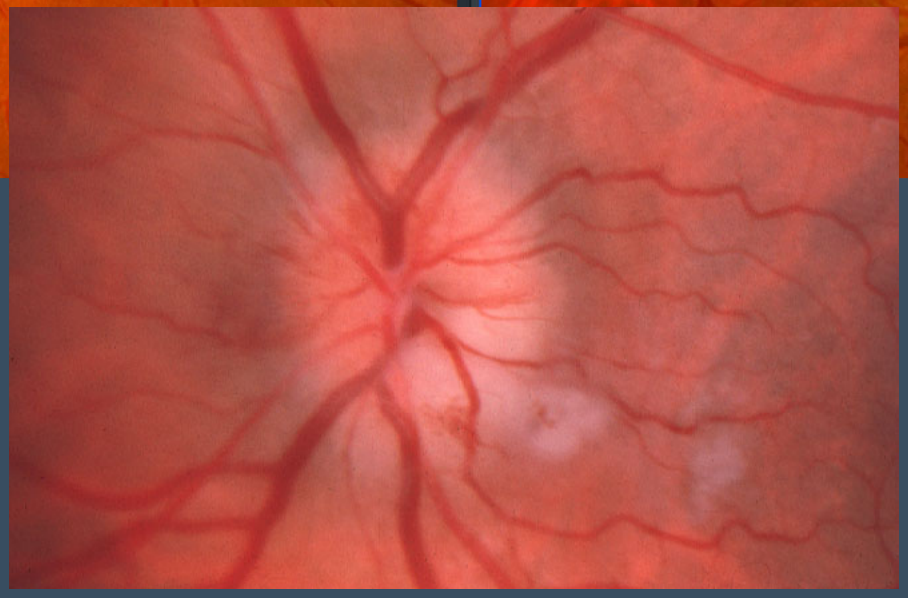


Retinal Whitening



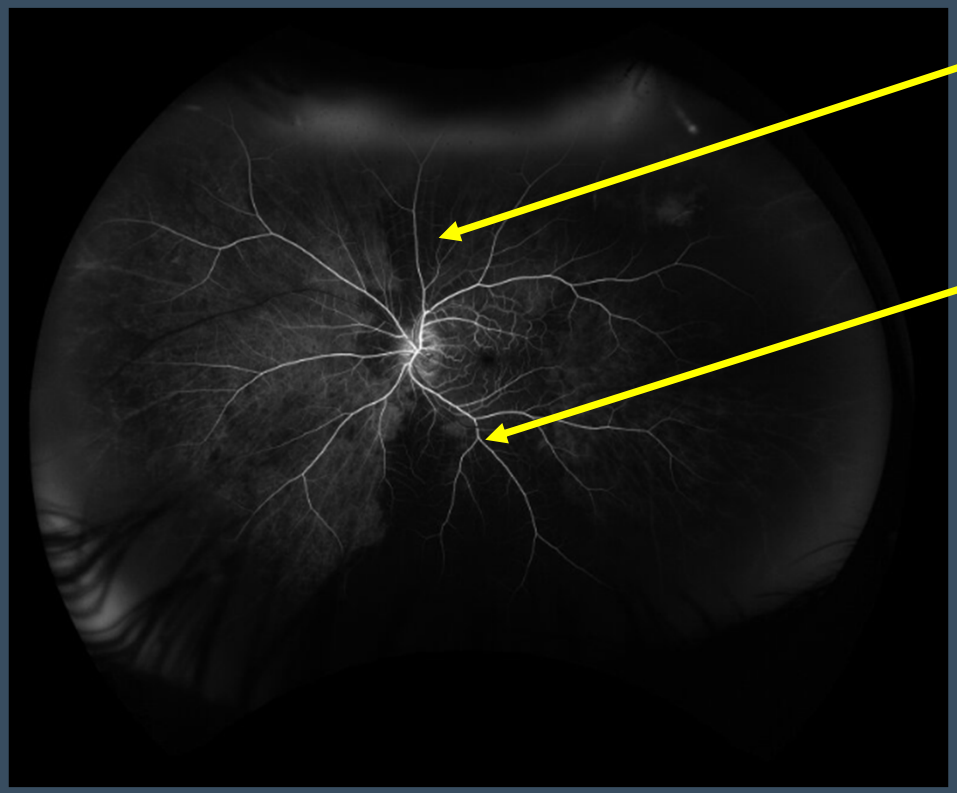
Cherry Red Spot

Posterior Ischemia: Optic Nerve

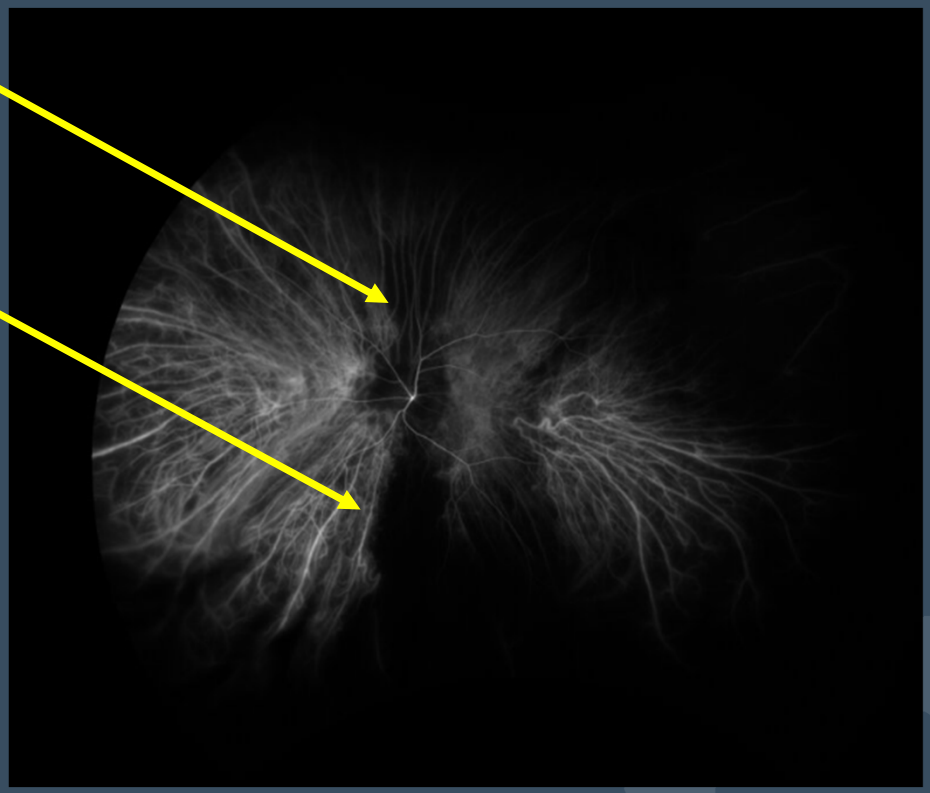


- Cotton Wool Spots
- Hemorrhages
- Pallid Edema

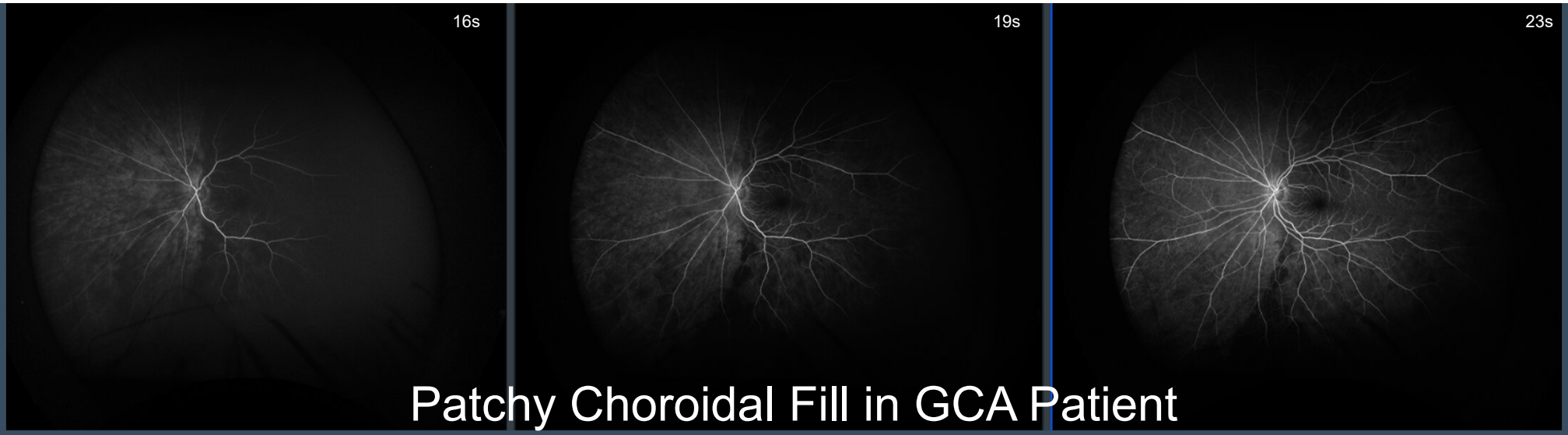
Posterior Ischemia: Choroidal Ischemia



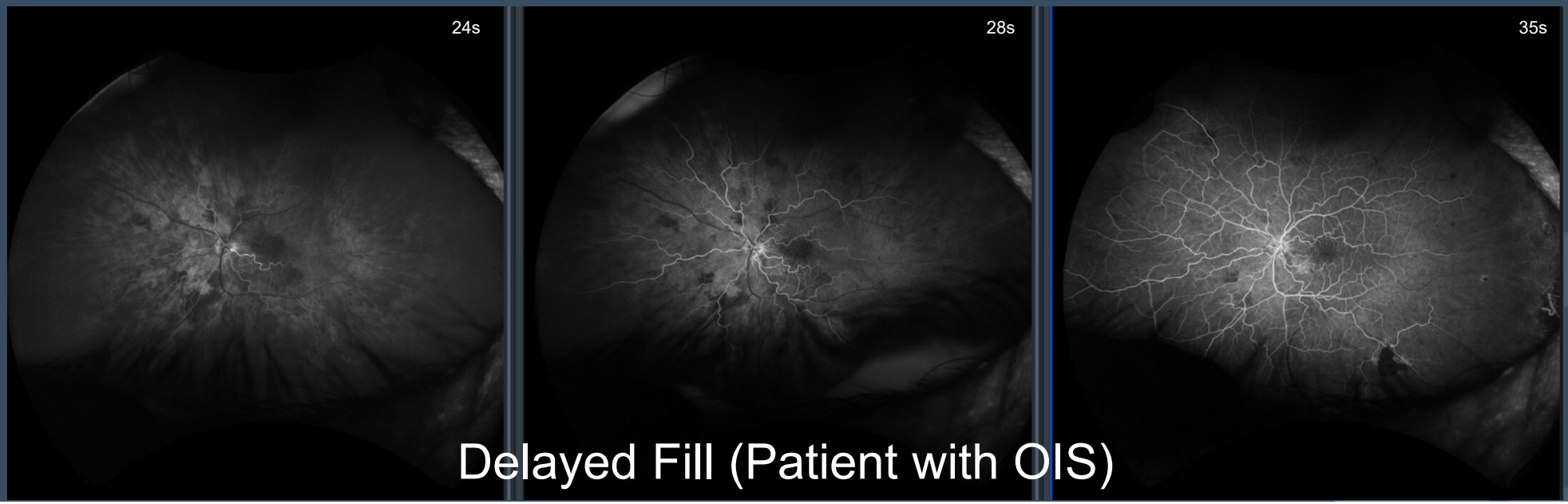
Fluorescein Angiography



Indocyanine Green Angiography



Patchy Choroidal Fill in GCA Patient



Delayed Fill (Patient with OIS)

Ophthalmic *Diagnoses* of GCA

- Optic Nerve
  - Amaurosis Fugax, AION, PION
- Retina
  - CRAO, BRAO, cilioretinal artery occlusion, CWS
- Anterior Segment
  - Pupil abnormalities, conjunctival and scleral injection, intraocular pressure abnormalities
- Extraocular Muscle (EOM)
  - EOM ischemia, CN palsies
- Ocular Ischemic syndrome
- Orbital Inflammatory Syndrome
- Visual field defects
  - Chiasm involvement; Cerebral Ischemic Lesions; Optic tract involvement

Ophthalmic *Findings* in GCA

- Cranial Neuropathies
  - Extraocular motility abnormalities
    - Can involve >1 CN (3,4,6)
  - CN II = Optic Nerve
    - Retrobulbar involvement
    - Chiasmal involvement
    - Optic tract involvement

Ophthalmic *Findings* in GCA

OVER 50 YO WITH ANY OF THESE →

CRP

CBC

ESR

Clinical Utility of ESR,CRP & Platelets

- 3001 patients underwent TABx
- 459 +ve cases
- Elevated values:
  - CRP>2.45
  - ESR>50
  - Platelets>400

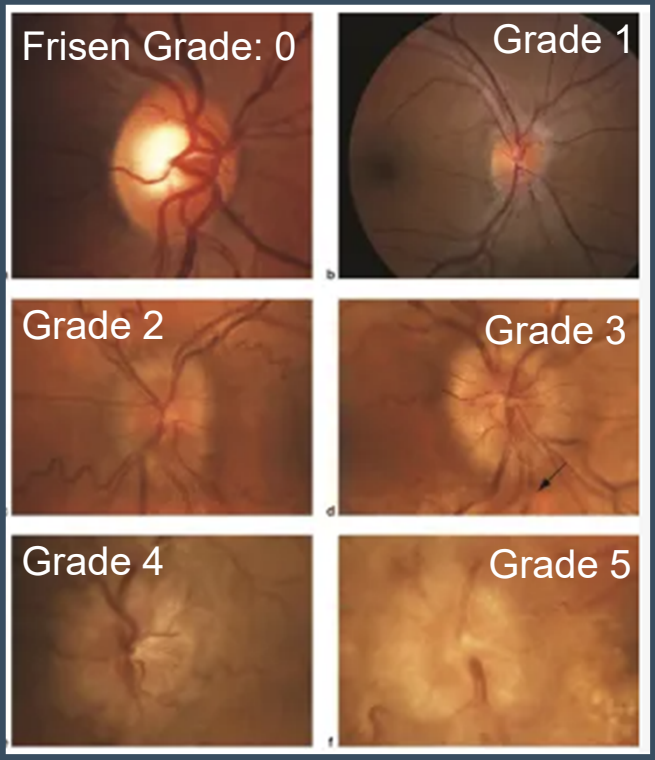
- If all 3 were elevated then 8x greater odds of GCA
- CRP & Platelets have a greater predictive value than ESR alone

Walvick MD, Walvick MP. Giant cell arteritis: laboratory predictors of a positive temporal artery biopsy. Ophthalmology. 2011 Jun;118(6):1201-4. doi: 10.1016/j.ophtha.2010.10.002. Epub 2011 Jan 12. PMID: 21232803.

HOW DID WE DO...

AI Image generated by Gemini 3, Google, Feb 2026.

Image adapted from: https://www.aol.com/articles/olympic-gold-medal-really-worth-130000637.html?utm_source=spotim&utm_medium=spotim_recirculation&spot_im_comment_id=sp_IjnMf2Jd_23501346_c_4CW0IC&spot_im_highlight_immediate=true. Accessed Feb 2026



EVENT 2: UNILATERAL DISC EDEMA

AI Image generated by Gemini 3, Google, Feb 2026.

Image Adapted from: https://www.aao.org/education/image/frisen-grades-3. Accessed Feb 2026

Case 1: Unilateral Disc Edema

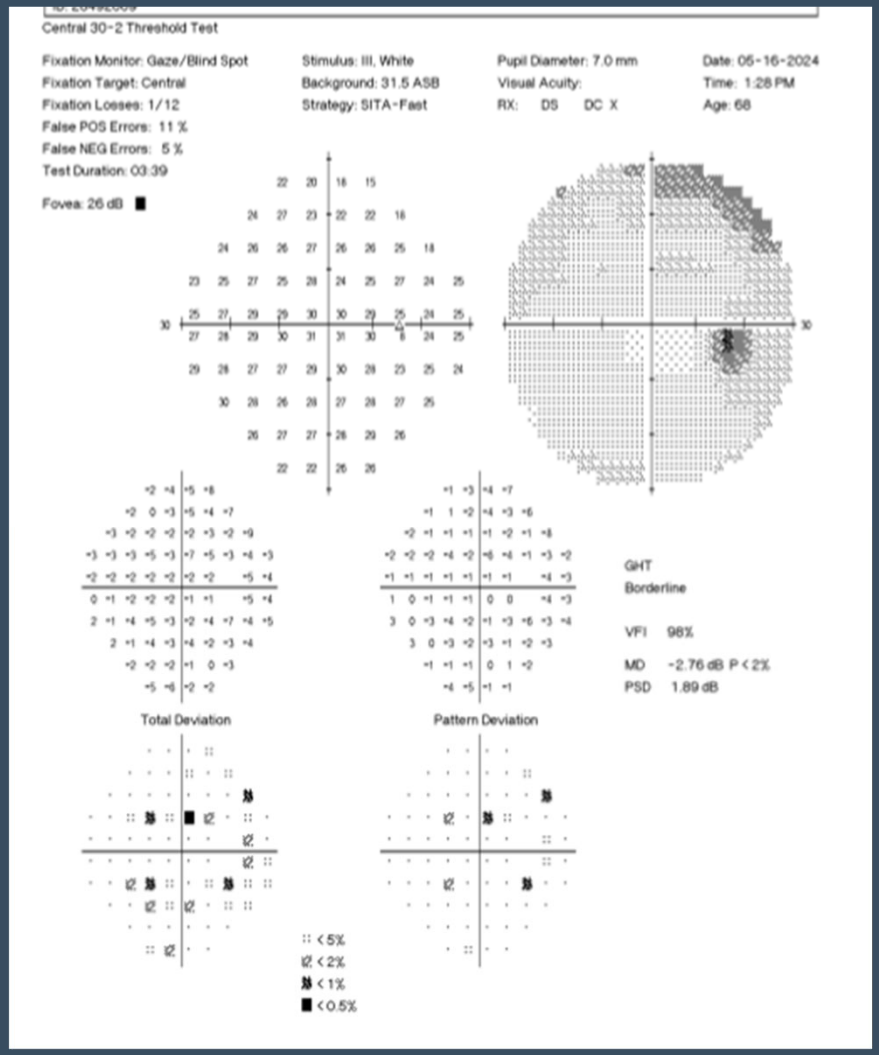
- HPI:5/16/2024
  - 68yo WM presents after awakening with blurry vision in his lower left eye that started about 10 days prior to presentation

PMH:	Medications:	Ocular Hx:
spastic gait	Carbidopa-levodopa	none
Prediabetes	ASA 81mg	
Parkinsonism	Vitamin B-12	
	fluoxetine	

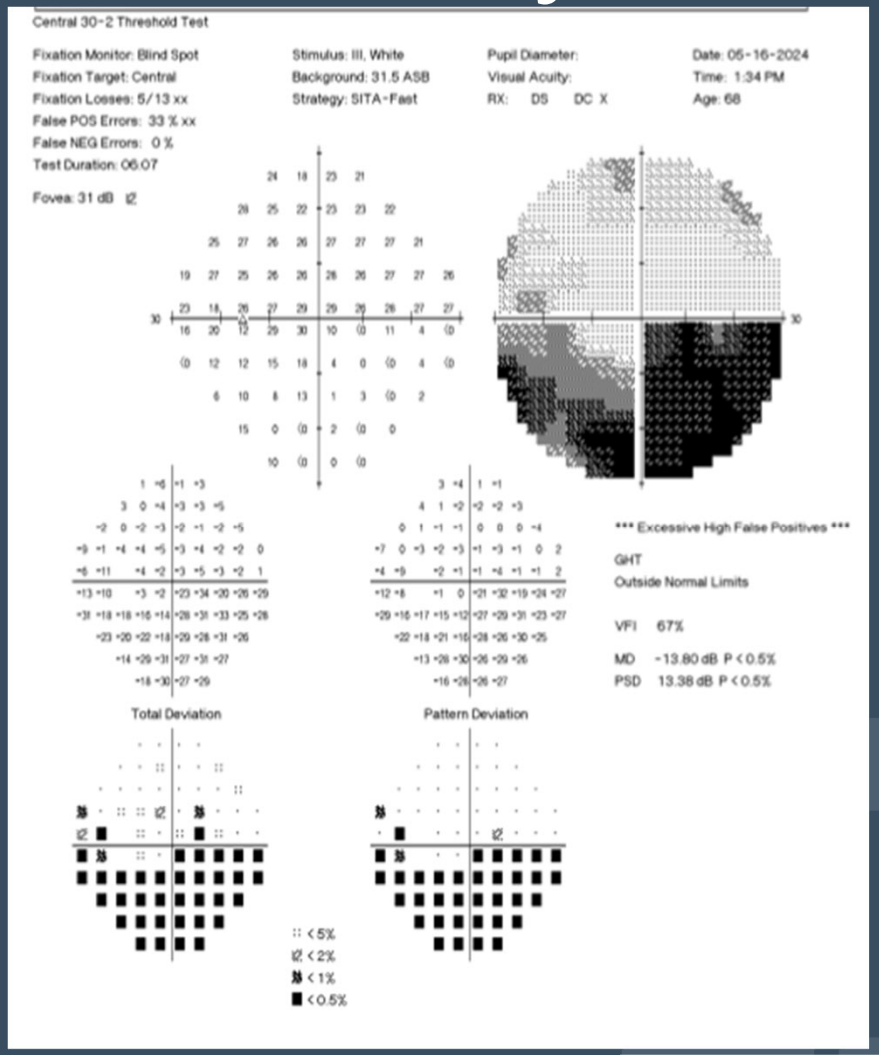
Baseline Exam:	
VA	
OD	OS
20/30-	20/30-
IOP	
OD	OS
16	15
Pupils	
OD	OS
PERRL; No RAPD	PERRL; No RAPD

- Normal Anterior SLE

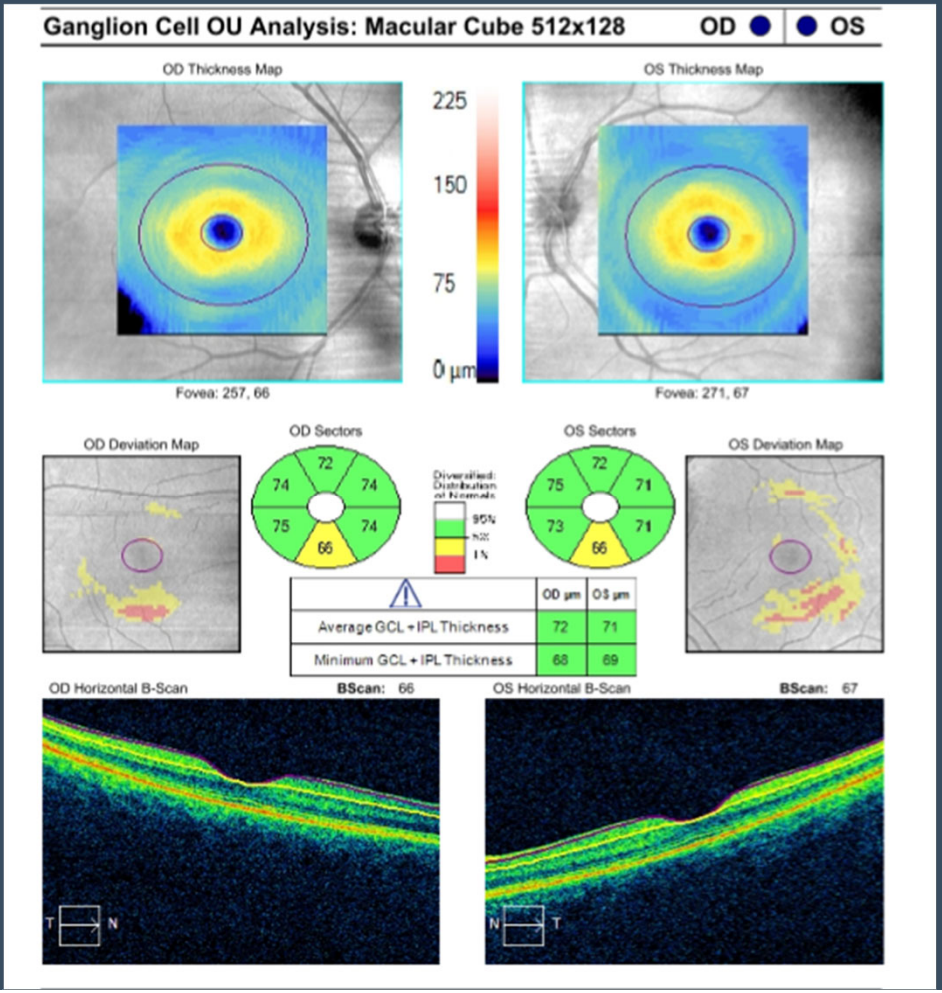
Right Eye



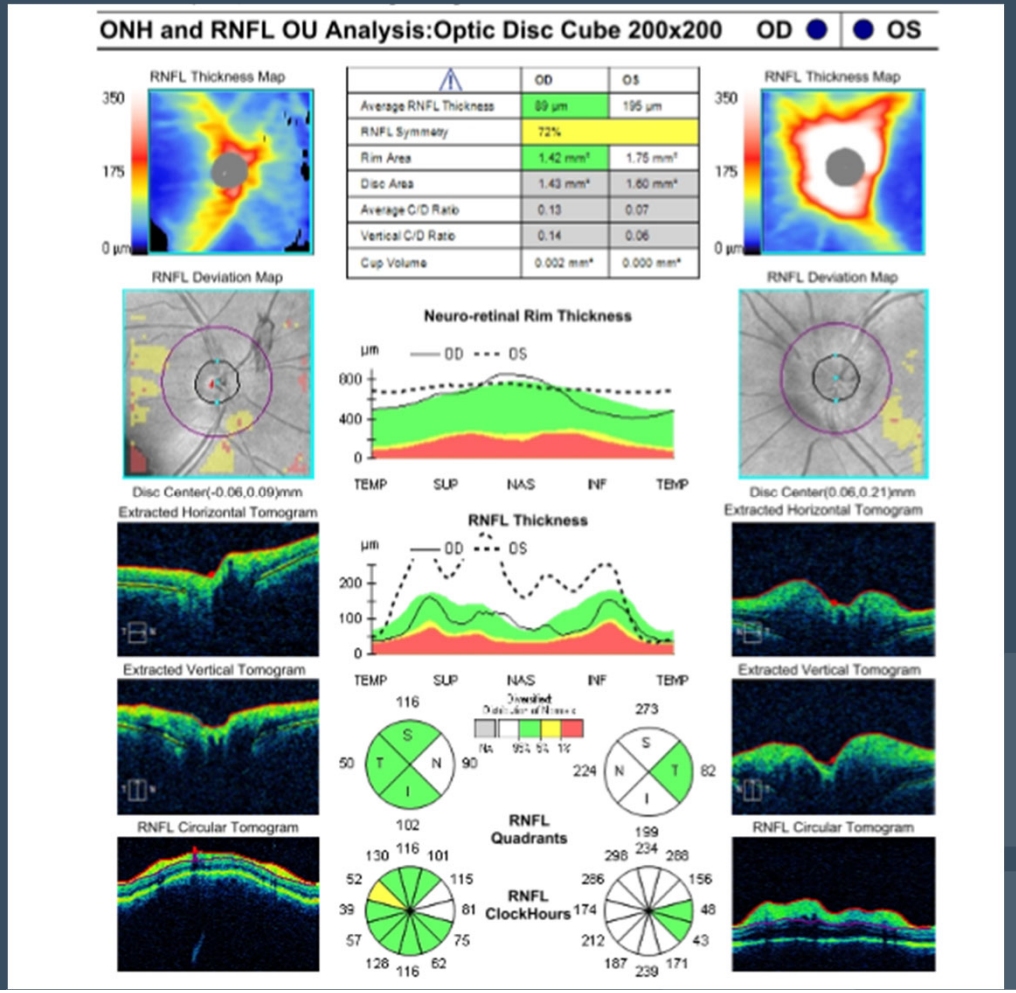
Left Eye



GCL


Ganglion Cell OU Analysis: Macular Cube 512x128 OD OS
OD Thickness Map
OS Thickness Map
225
150
75
0 µm
Fovea: 257, 66
Fovea: 271, 67
OD Deviation Map
OD Sectors
OS Sectors
OS Deviation Map
72
74
74
75
74
66
72
75
71
73
71
66
OD µm
OS µm
Average GCL + IPL Thickness
72
71
Minimum GCL + IPL Thickness
68
69
OD Horizontal B-Scan
BScan: 66
OS Horizontal B-Scan
BScan: 67
T
N
N
T

RNFL


ONH and RNFL OU Analysis:Optic Disc Cube 200x200 OD OS
RNFL Thickness Map
350
175
0 µm
OD
OS
Average RNFL Thickness
89 µm
196 µm
RNFL Symmetry
72%
Rim Area
1.42 mm²
1.75 mm²
Disc Area
1.43 mm²
1.60 mm²
Average C/D Ratio
0.13
0.07
Vertical C/D Ratio
0.14
0.06
Cup Volume
0.002 mm³
0.000 mm³
RNFL Deviation Map
Neuro-retinal Rim Thickness
µm
OD
OS
800
400
0
TEMP
SUP
NAS
INF
TEMP
Disc Center(-0.06,0.09)mm
Disc Center(0.06,0.21)mm
Extracted Horizontal Tomogram
RNFL Thickness
200
100
Extracted Vertical Tomogram
RNFL Circular Tomogram
116
S
T
N
I
50
90
102
273
224
82
199
RNFL Quadrants
130
116
101
52
115
39
81
57
75
128
116
62
RNFL ClockHours
298
234
288
286
156
174
48
212
43
187
239
171

Initial Work-up

- A1c; CBC; CRP; ESR: normal
- Carotid US: 20-39% stenosis in R&L ICA
- MRI Brain WWO: normal

Typical NAION

- Disc edema resolves within 6-8 weeks
- Altitudinal defect
- 15% risk of developing in fellow eye in 5 years
- Avoid BP meds at night; manage systemic disease
- PDE5 Inhibitors
- GLP-1 association still unclear

Case 2: Unilateral Disc Edema

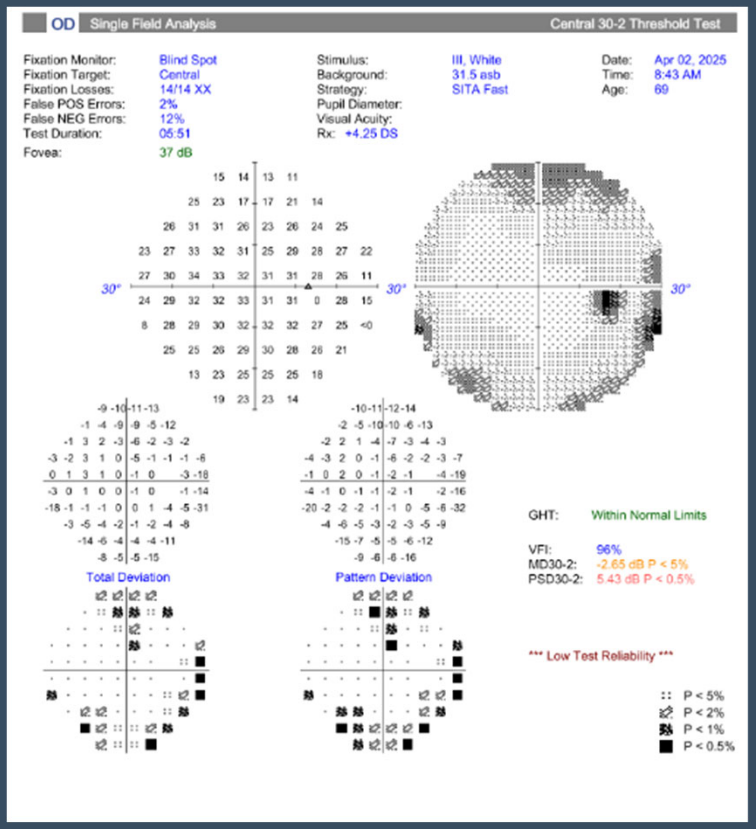
- 4/1/2025: 69 yo WF presents with 2-3 weeks of smudge in her left eye peripheral vision

PMH:	Medications:	Ocular Hx:	Baseline Exam:
HTN OSA Grave's Dz	Pregabalin Losartan Bupropion Meloxicam Propanolol	none	**VA** **OD** 20/20- **OS** 20/40- **IOP** **OD** 16 **OS** 15 **Pupils** **OD** PERRL; No RAPD **OS** PERRL; +APD

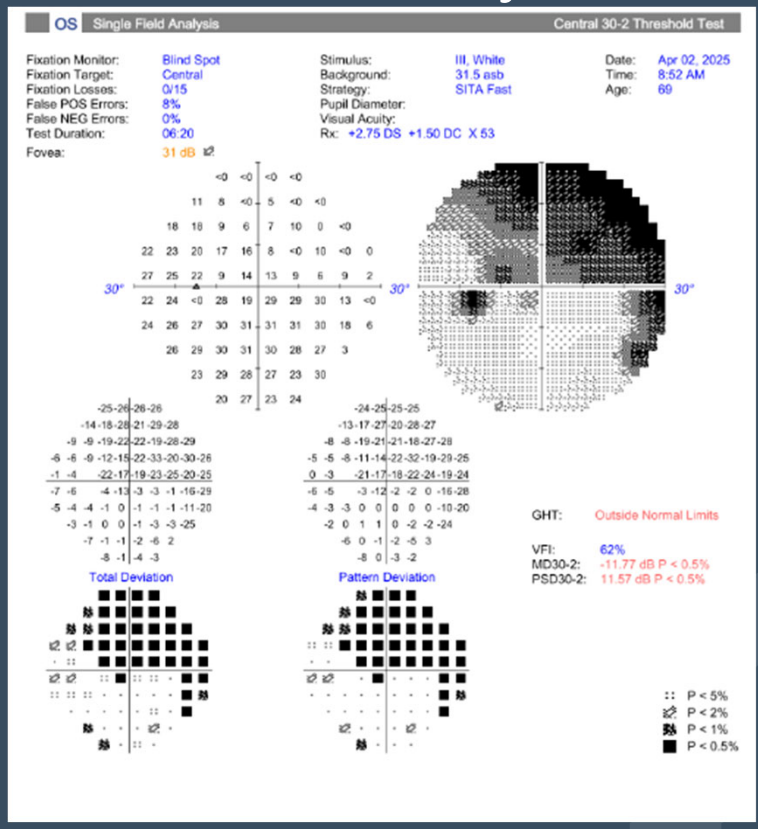
- Normal Anterior SLE

HVF 4/2/2025

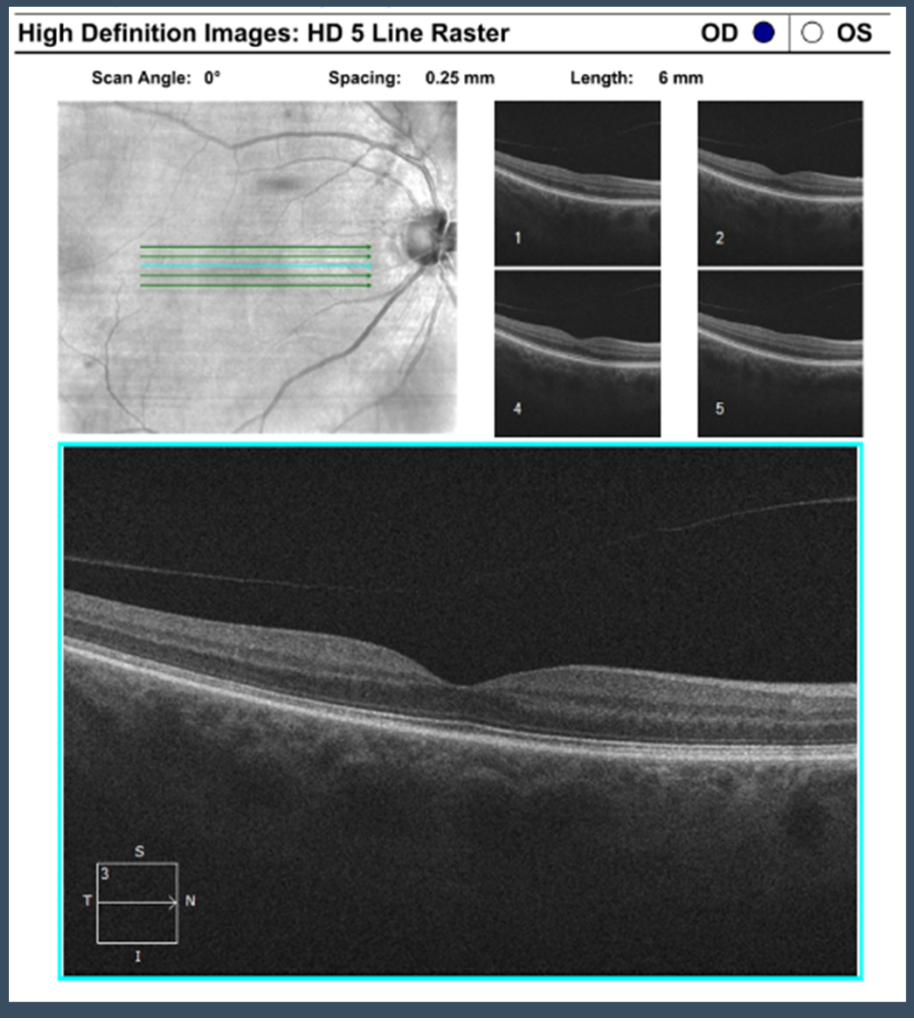
Right Eye

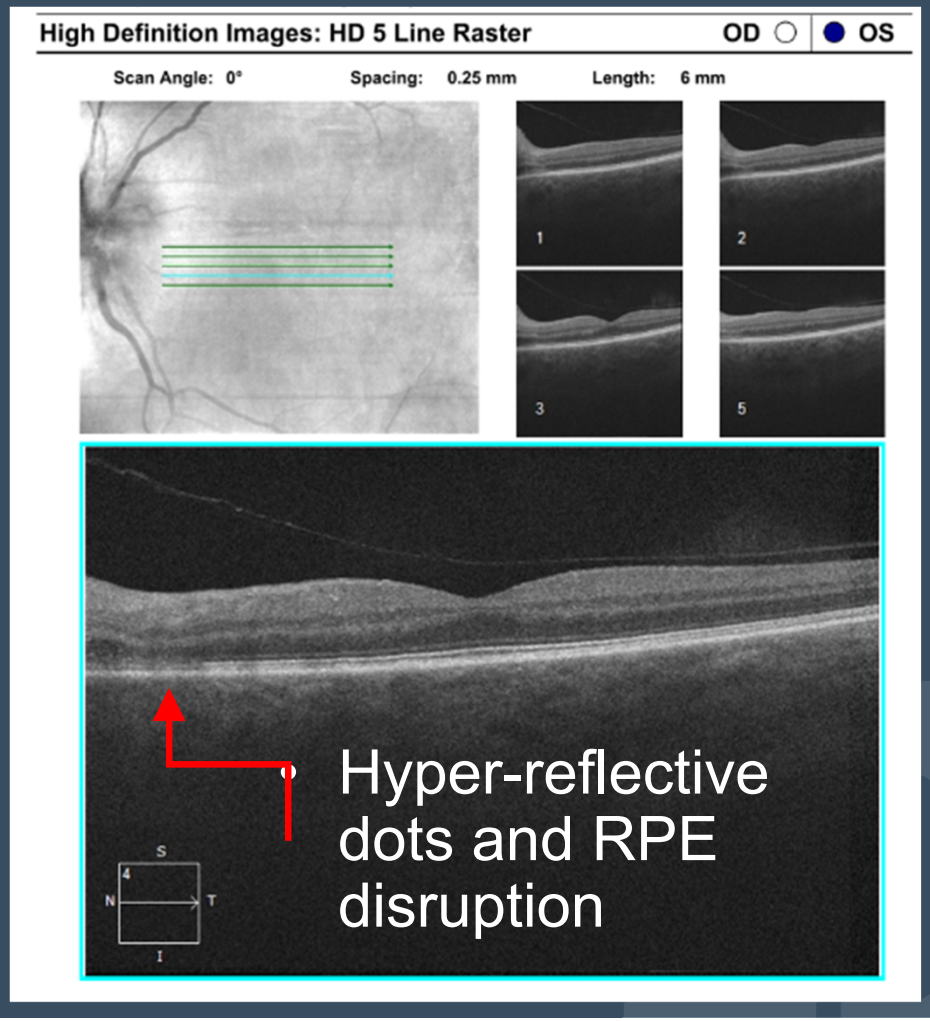


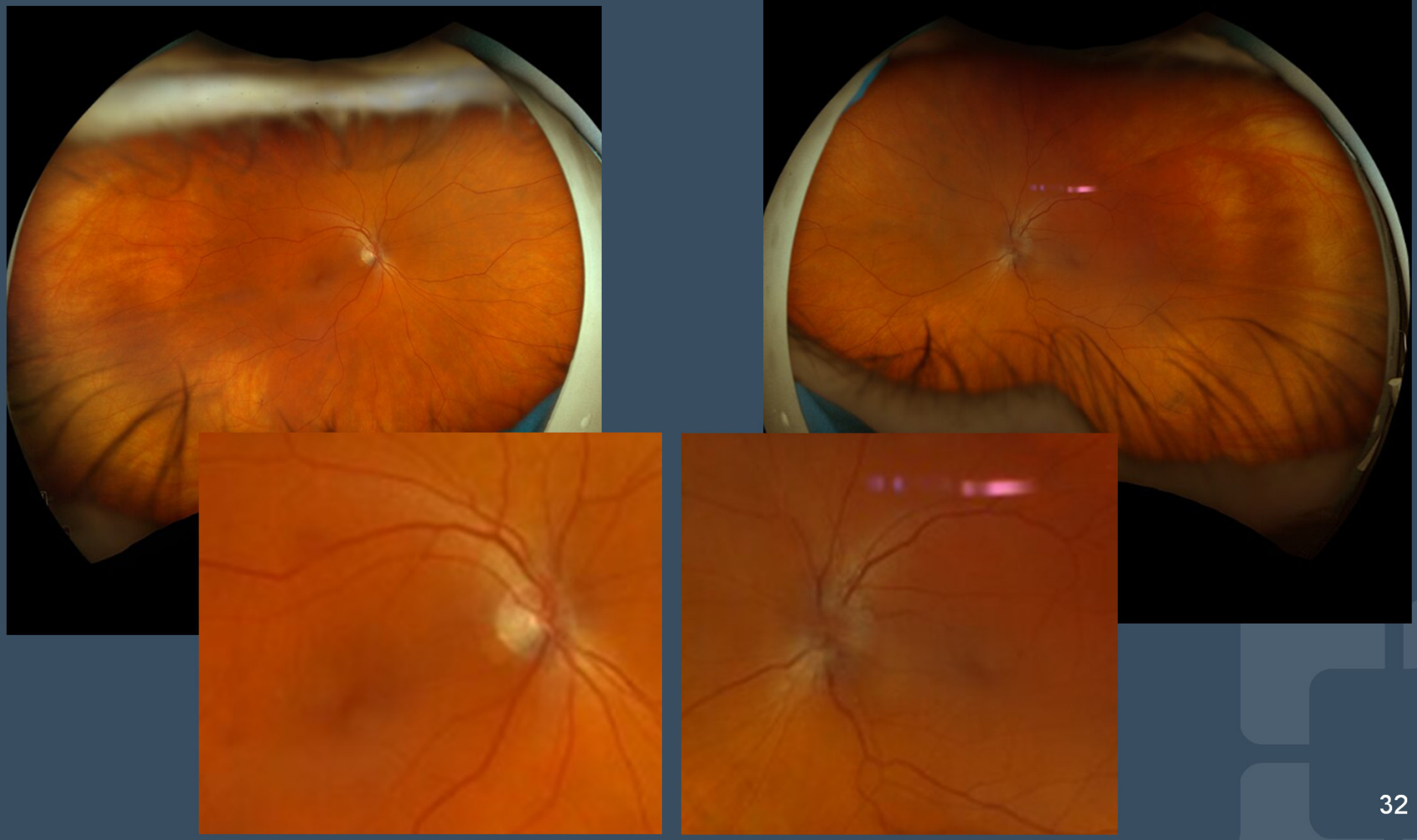
Left Eye



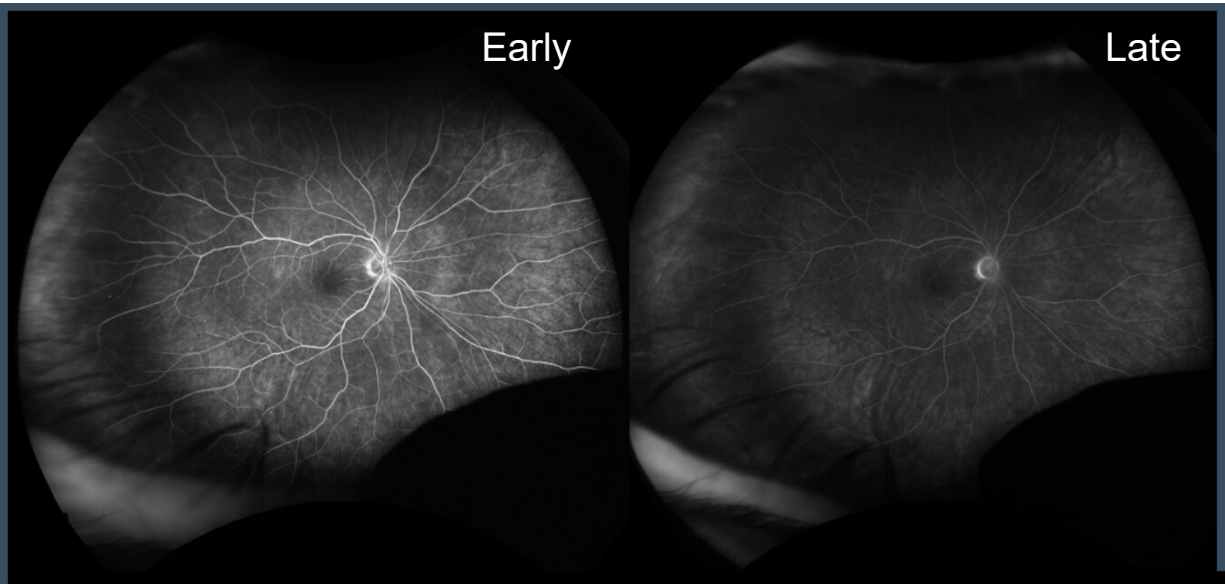
Mac OCT OU:


High Definition Images: HD 5 Line Raster
OD
OS
Scan Angle: 0°
Spacing: 0.25 mm
Length: 6 mm
1
2
4
5
S
3
T
N
I

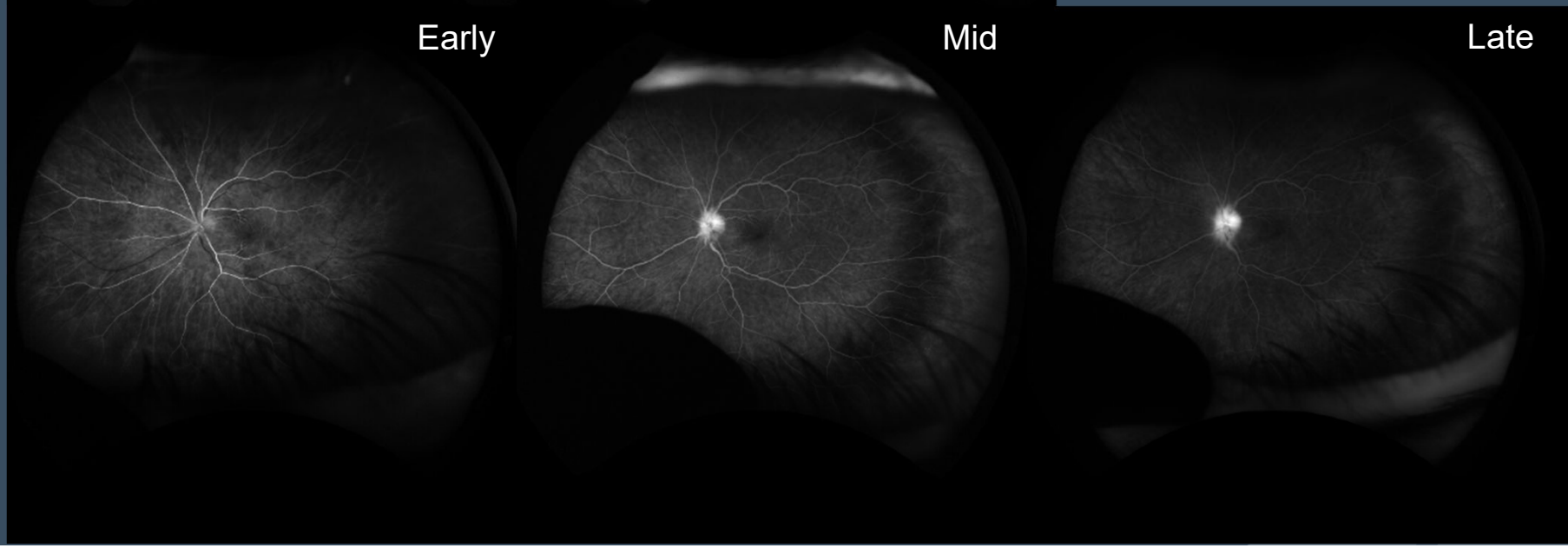

High Definition Images: HD 5 Line Raster
OD
OS
Scan Angle: 0°
Spacing: 0.25 mm
Length: 6 mm
1
2
3
5
S
4
N
T
I
Hyper-reflective dots and RPE disruption



Right Eye



Left Eye



Initial Work-up

- MRI Brain, Orbit, MRV: normal
- CTA Head & Neck: normal
- ESR & CRP: normal
- CBC: elevated WBCs
- ACE, TB, Lyme, Bartonella: NEG

One LAST Clue

Image Adapted from: https://en.wikipedia.org/wiki/Al_Capone#/media/File:Al_Capone_in_1930.jpg. Accessed Feb 2026.

AI Image generated by Gemini 3, Google, Feb 2026.

Ocular Syphilis = Neuro Syphilis

…Syphilis

Womp Womp

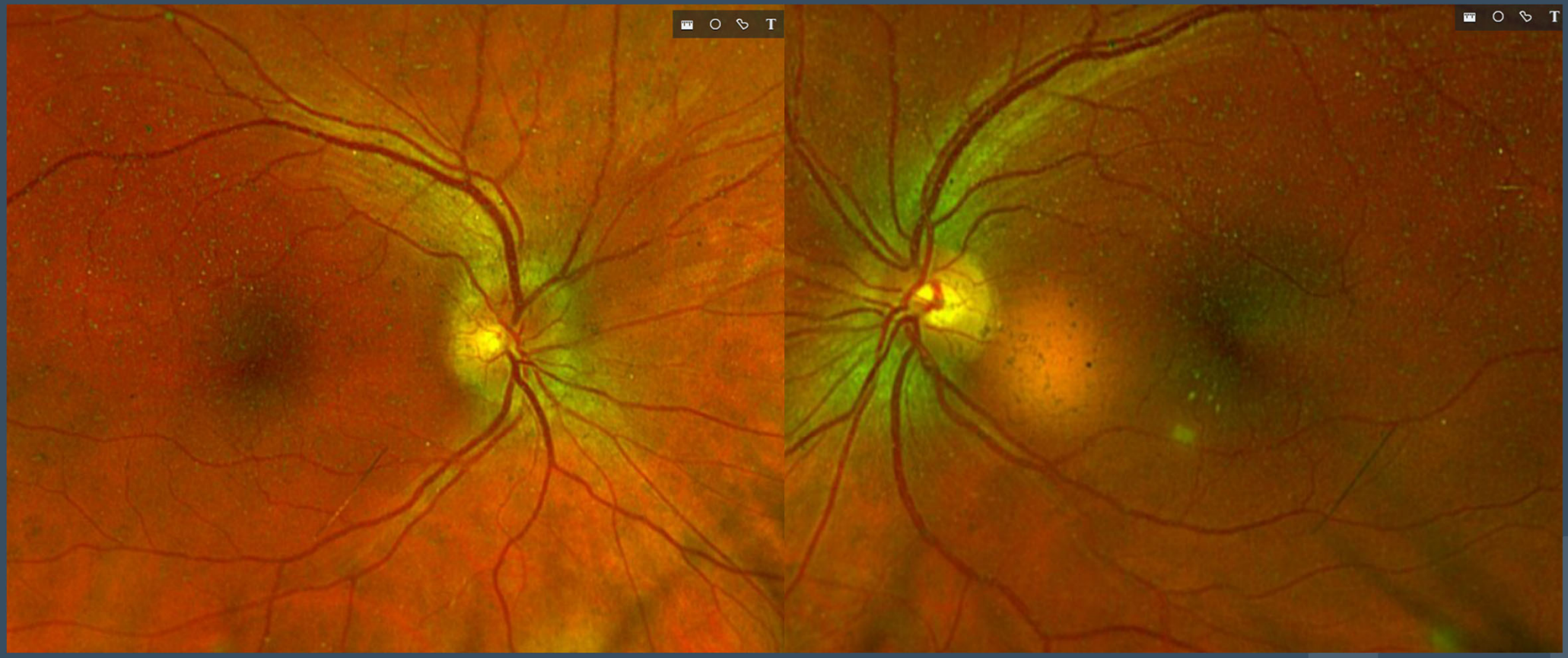
- Admitted to neurology with ID consult
- Underwent LP
- IV PCN therapy

Case 3: Unilateral Disc Edema

- HPI: 8/26/2024
  - 37yo WM presents with one day history of blurry vision OD

PMH:	Medications:	Ocular Hx:	Baseline Exam:	
None	None	None	VA	
			OD 20/30	OS 20/30
			IOP	
			OD 22	OS 19
			Pupils	
			OD PERRL; No RAPD	OS PERRL; No RAPD

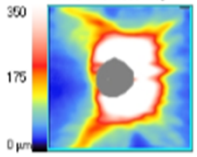
- Normal Anterior SLE



			OD	OS	
Name:	BADORREK, RYAN A				
ID:	88354773	Exam Date:	8/26/2024	8/26/2024	LES_REJ_OCT
DOB:	10/15/1987	Exam Time:	3:11 PM	3:11 PM	
Gender:	Male	Serial Number:	5000-5987	5000-5987	
Technician:	Operator, Cirrus	Signal Strength:	6/10	5/10	

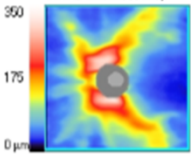
ONH and RNFL OU Analysis:Optic Disc Cube 200x200 OD ● | ● OS

RNFL Thickness Map

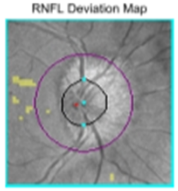


	OD	OS
Average RNFL Thickness	225 µm	100 µm
RNFL Symmetry	62%	
Rim Area	1.98 mm²	1.23 mm²
Disc Area	1.98 mm²	1.55 mm²
Average C/D Ratio	0.07	0.47
Vertical C/D Ratio	0.06	0.45
Cup Volume	0.002 mm³	0.139 mm³

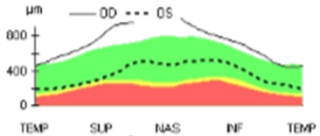
RNFL Thickness Map



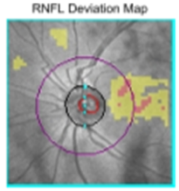
RNFL Deviation Map



Neuro-retinal Rim Thickness

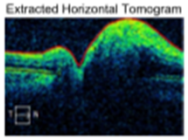


RNFL Deviation Map

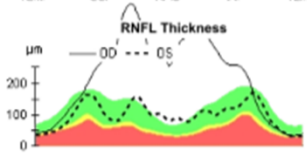


Disc Center(-0.24,0.03)mm

Extracted Horizontal Tomogram

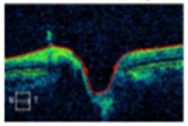


RNFL Thickness

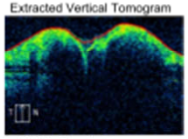


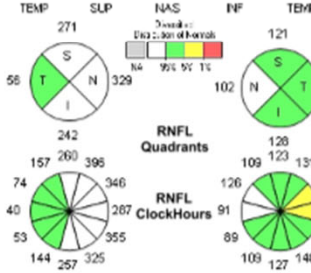
Disc Center(-0.21,-0.09)mm

Extracted Horizontal Tomogram

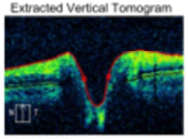


Extracted Vertical Tomogram

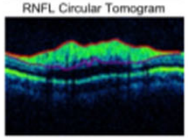




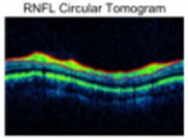
Extracted Vertical Tomogram



RNFL Circular Tomogram



RNFL Circular Tomogram

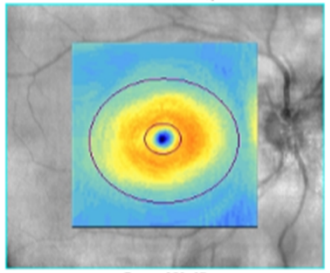


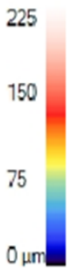
Comments	Doctor's Signature	
		LES_REJ_OCT SW Ver: 11.5.3.61246 Copyright 2021 Carl Zeiss Meditec, Inc All Rights Reserved

			OD	OS	
Name:	BADORREK, RYAN A				
ID:	88354773	Exam Date:	8/26/2024	8/26/2024	LES_REJ_OCT
DOB:	10/15/1987	Exam Time:	3:10 PM	3:12 PM	
Gender:	Male	Serial Number:	5000-5987	5000-5987	
Technician:	Operator, Cirrus	Signal Strength:	8/10	6/10	

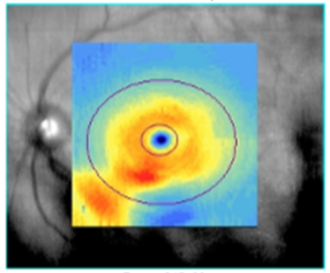
Ganglion Cell OU Analysis: Macular Cube 512x128 OD ● | ● OS

OD Thickness Map





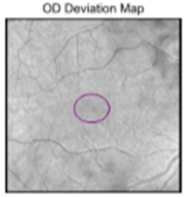
OS Thickness Map



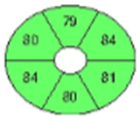
Fovea: 252, 67

Fovea: 245, 68

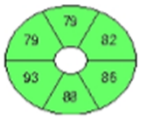
OD Deviation Map



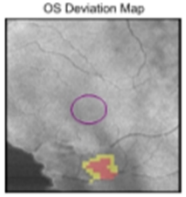
OD Sectors



OS Sectors

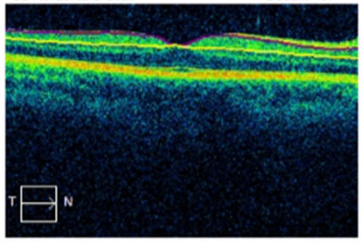


OS Deviation Map

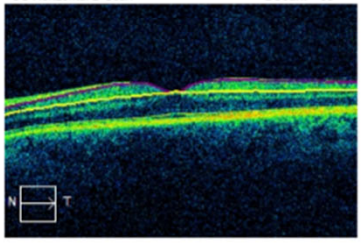


	OD µm	OS µm
Average GCL + IPL Thickness	81	84
Minimum GCL + IPL Thickness	81	81

OD Horizontal B-Scan **BScan:** 67

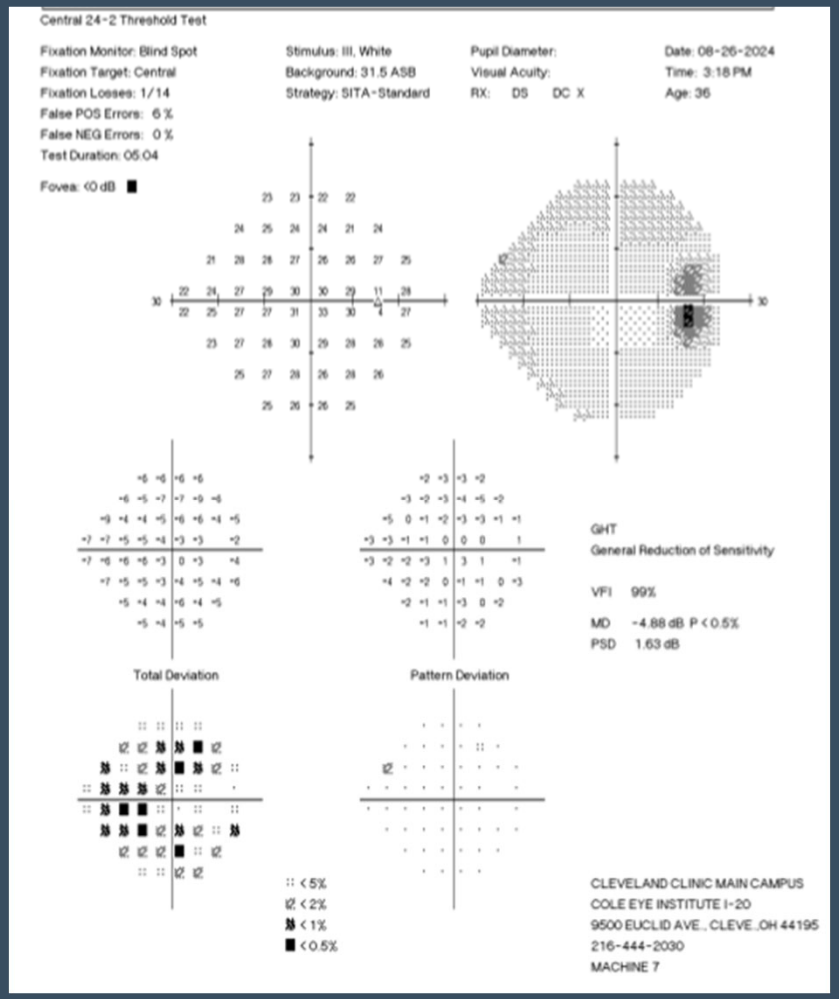


OS Horizontal B-Scan **BScan:** 68

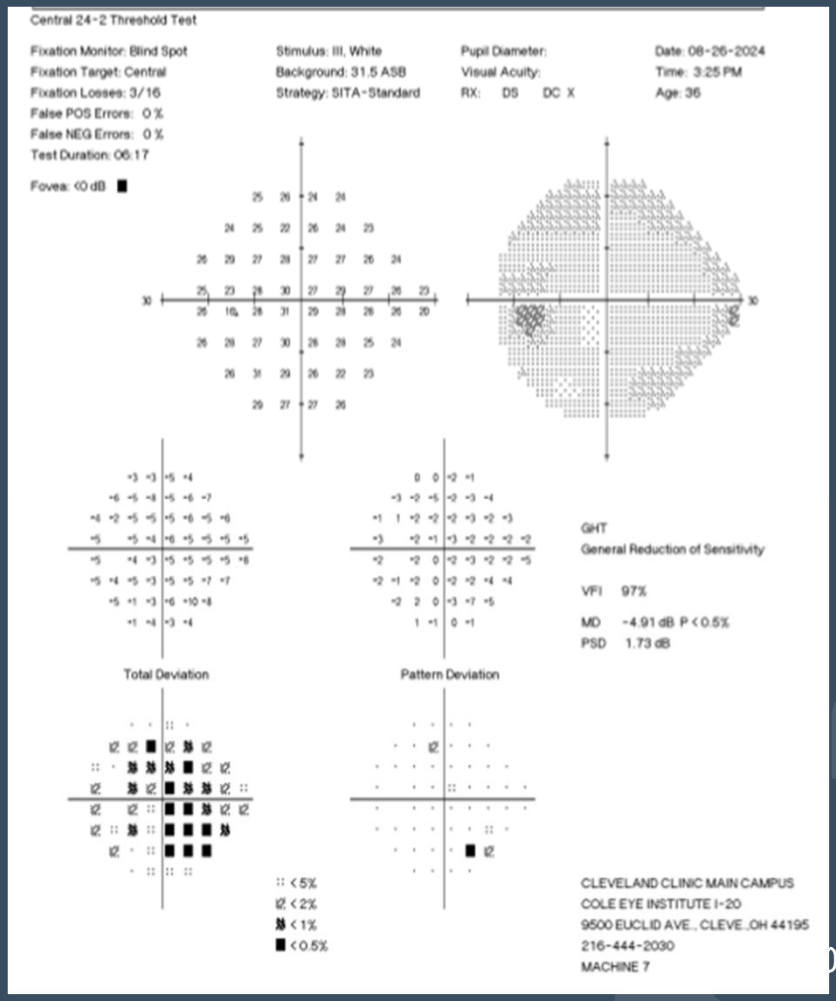


Comments	Doctor's Signature	
		LES_REJ_OCT SW Ver: 11.5.3.61246 Copyright 2021 Carl Zeiss Meditec, Inc All Rights Reserved

Right Eye



Left Eye



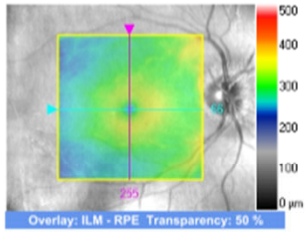
Name: BADORREK, RYAN A

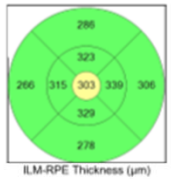
ID: 88354773
DOB: 10/15/1987
Gender: Male
Technician: Operator, Cirrus

Exam Date: 9/13/2024
Exam Time: 2:36 PM
Serial Number: 5000-5987
Signal Strength: 7/10

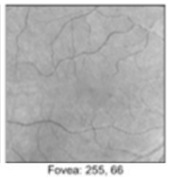
LES_REJ_OCT

Macula Thickness : Macular Cube 512x128 OD ● ○ OS



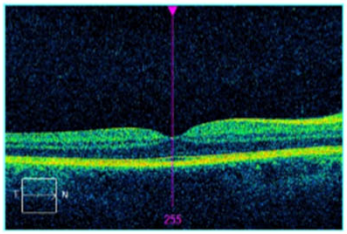


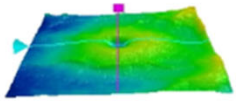
ILM-RPE Thickness (µm)



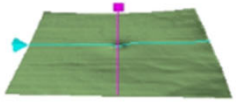
Fovea: 255, 66

Overlay: ILM - RPE Transparency: 50 %

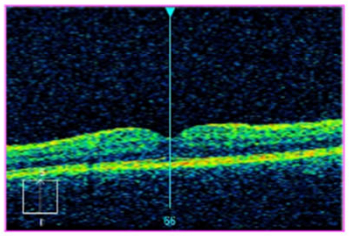




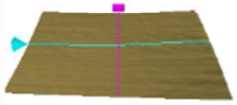
ILM - RPE



ILM



Diversified: Distribution of Normals
99%
95%
5%
1%



RPE

	Central Subfield Thickness (µm)	Cube Volume (mm³)	Cube Average Thickness (µm)
ILM - RPE	303	10.5	293

Comments

Doctor's Signature

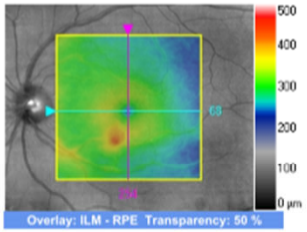
Name: BADORREK, RYAN A

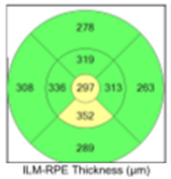
ID: 88354773
DOB: 10/15/1987
Gender: Male
Technician: Operator, Cirrus

Exam Date: 9/13/2024
Exam Time: 2:38 PM
Serial Number: 5000-5987
Signal Strength: 8/10

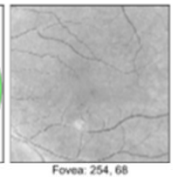
LES_REJ_OCT

Macula Thickness : Macular Cube 512x128 OD ○ ● OS



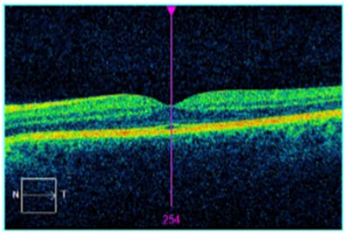


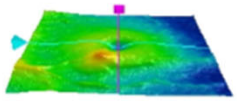
ILM-RPE Thickness (µm)



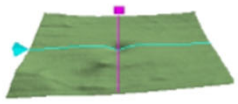
Fovea: 254, 68

Overlay: ILM - RPE Transparency: 50 %

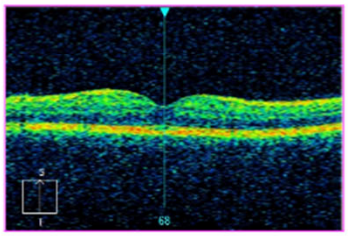




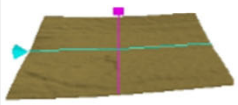
ILM - RPE



ILM



Diversified: Distribution of Normals
99%
95%
5%
1%



RPE

	Central Subfield Thickness (µm)	Cube Volume (mm³)	Cube Average Thickness (µm)
ILM - RPE	297	10.5	290

Comments

Doctor's Signature

Initial Work-Up

- CRP; ESR; A1C; CMP; CBC: negative
- ACE; Syphilis: negative
- MRI Brain & Orbit WWO: normal

More Work-Up…

- POSITIVE:
  - Bartonella Ab panel
    - B Henselae IgG - >1:1024
    - B Henselae IgM - < 1:16
    - B Quintana IgG - < 1:16
    - B Quintana IgM - < 1:16

- Treated with doxycycline 100mg bid
- Follow up exam 10/8/2024 shows improved disc edema OD

Unilateral Disc Edema

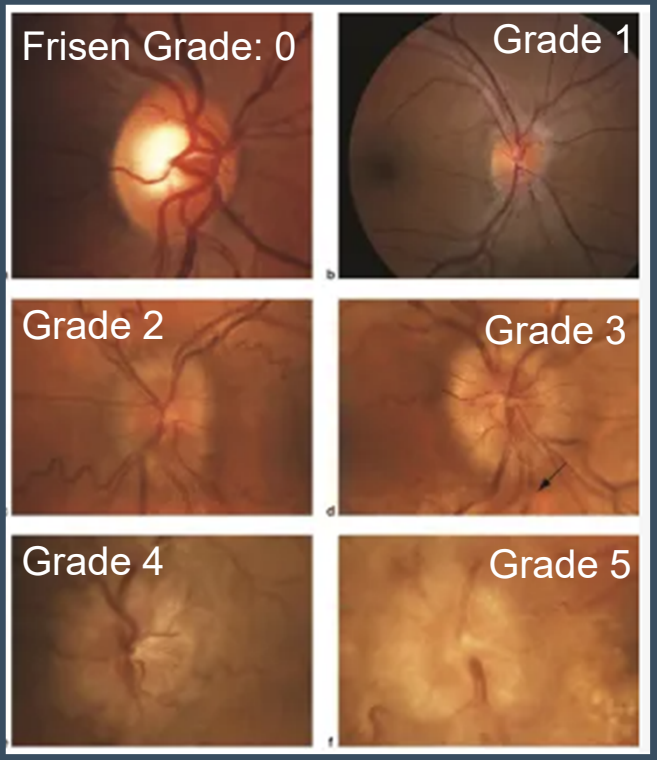
- What can we do in our office??
  - CHECK PUPILS!!!
  - Check Color Vision
  - Get a HVF (24-2 Sita Fast OU)
  - Get photos if you can
  - OCT RNFL & GCL
  - Consider UWFA and FAF

Unilateral Disc Edema

- At minimum in patients >50yo:
  - CBC
  - CRP
  - ESR

Unilateral Disc Edema

- What else is reasonable??
  - Syphilis
  - TB
  - ACE
  - Lyme >30 & < 30 days Ab
  - Bartonella Ab / PCR
  - Toxoplasmosis Ab
  - CNS Demyelinating Panel (MOG & AQP4)
- Do I need to get imaging & what should I get???
  - MRI brain & orbits WWO



HOW DID WE DO . . .

AI Image generated by Gemini 3, Google, Feb 2026.

Image adapted from: https://www.aol.com/articles/olympic-gold-medal-really-worth-130000637.html?utm_source=spotim&utm_medium=spotim_recirculation&spot_im_comment_id=sp_IjnMf2Jd_23501346_c_4CW0IC&spot_im_highlight_immediate=true. Accessed Feb 2026

EVENT 3: BILATERAL DISC EDEMA

AI Image generated by Gemini 3, Google, Feb 2026.

Bilateral Disc Edema

- This patient needs neuroimaging
- Send them to the ED – MRI brain & orbits WWO, MRV, BP, LP, etc…

Image Adapted from: https://www.istockphoto.com/photo/a-man-standing-in-wet-pants-against-the-wall-urinary-incontinence-is-an-increasingly-gm1263101623-369674350. Accessed October 2025.
Image Adapted from: https://www.redbubble.com/i/poster/Get-outta-here-sign-by-JoAnnFineArt/12523623.LVTDI. Accessed October 2025.

Image adapted from: https://www.aol.com/articles/olympic-gold-medal-really-worth-130000637.html?utm_source=spotim&utm_medium=spotim_recirculation&spot_im_comment_id=sp_IjnMf2Jd_23501346_c_4CW0IC&spot_im_highlight_immediate=true. Accessed Feb 2026

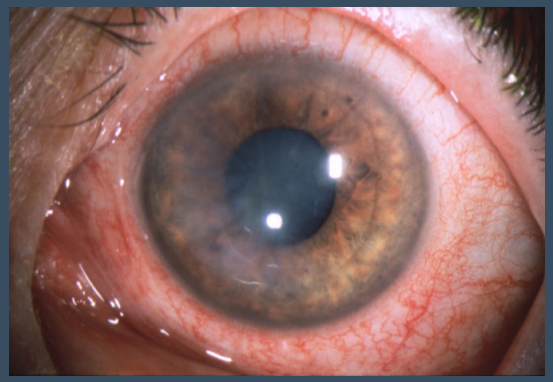
EVENT 4: HEADACHE

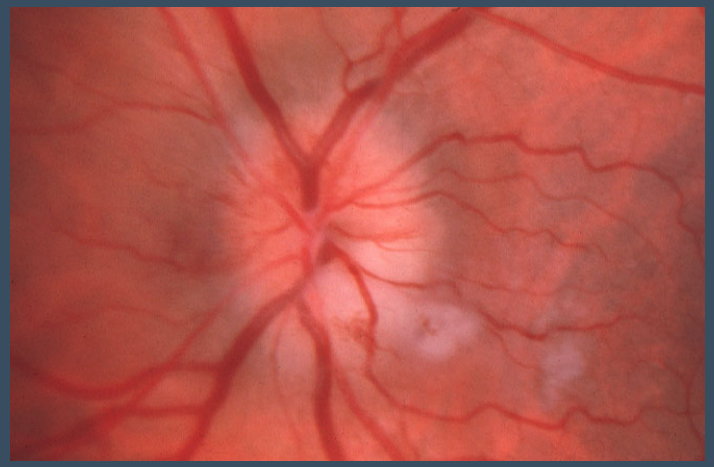
- The role of the ophthalmologist…

AI Image generated by Gemini 3, Google, Feb 2026.

Our Main Role:

- Rule out:
  - Uveitis: anterior & posterior
  - Scleritis: anterior & posterior
  - Elevated intraocular pressure
  - Anisocoria
  - Papilledema
  - EOM Deficits
  - Refractive Error





Migraine

- Key Points:
  - Aura <60 minutes
  - Followed by headache
  - Known history of migraine
- Send for work-up if:
  - New in onset (especially >50yo)
  - Different from prior migraines or headaches
  - Aura lasting >60 minutes
  - Additional focal neurologic deficits
  - GCA positive ROS & >50yo

Red Flag Headaches

- GCA Symptoms & >50yo
- Thunderclap Description
- Focal neurologic signs / confusion
- Papilledema on exam
- Associated with:
  - Fever, Valsalva, Positional Change, Exertion
- Intractable or progressive worsening

Image Adapted from: https://www.redbubble.com/i/poster/Get-outta-here-sign-by-JoAnnFineArt/12523623.LVTDI. Accessed October 2025.

HOW DID WE DO...

AI Image generated by Gemini 3, Google, Feb 2026.

Image adapted from: https://www.aol.com/articles/olympic-gold-medal-really-worth-130000637.html?utm_source=spotim&utm_medium=spotim_recirculation&spot_im_comment_id=sp_IjnMf2Jd_23501346_c_4CW0IC&spot_im_highlight_immediate=true. Accessed Feb 2026

EVENT 5: CRANIAL NEUROPATHIES

AI Image generated by Gemini 3, Google, Feb 2026.

Cranial Nerve Palsies

CN III – Oculmotor Nerve

- Elevation, Adduction & Depression of the eye
- Pupil & eye lid (levator palpebrae)
- Diplopia +/- ophthalmoplegia, anisocoria, ptosis

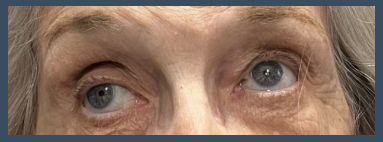
CN IV – Trochlear Nerve

- Extorsion, Elevation & Adduction
- Diplopia & head tilt

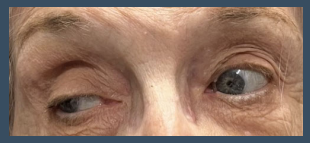
CN VI – Abducens Nerve

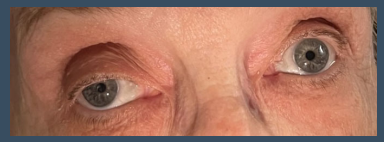
- Abduction of the eye
- Diplopia

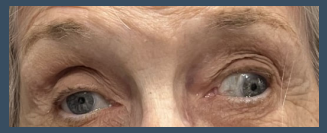
Questions to Ask the Patient:



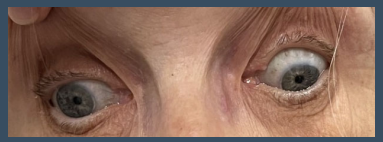
Elevation







Adduction



Depression

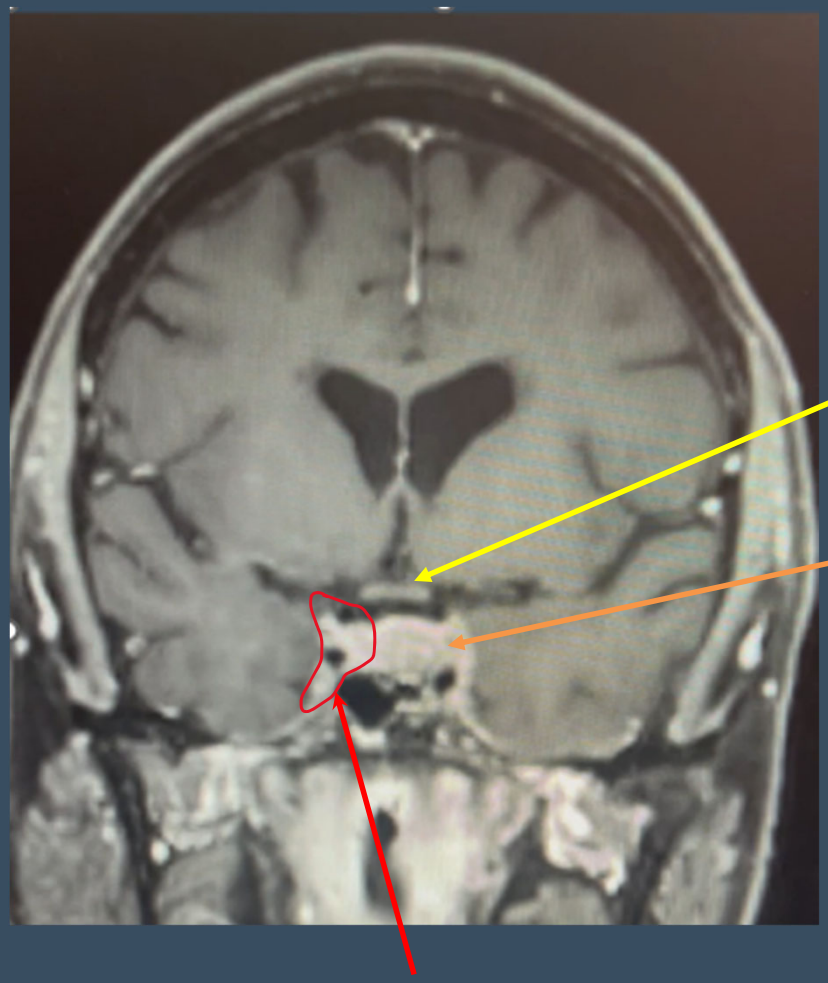
- Is the double vision horizontal or vertical?
- Does it get worse when you look left or right?
- Is it better if you tilt your head to your left or right shoulder?
- Did it happen quickly or slowly progressive over time?
- Is it present in primary gaze and for how much of the day?
- Is it worse in the morning or at night?

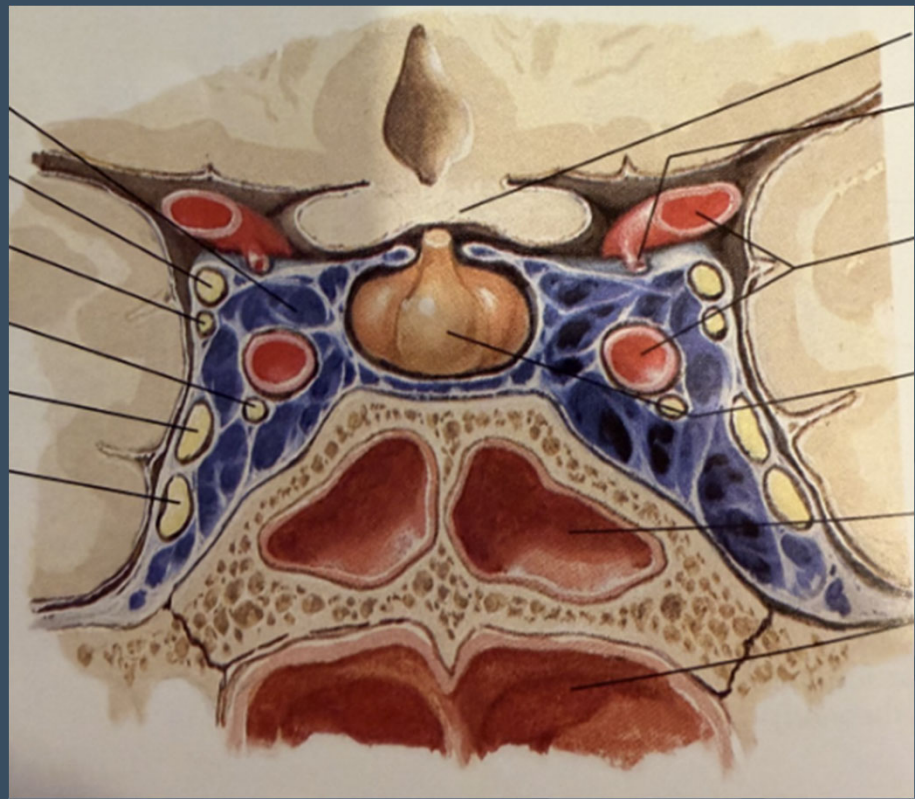
Questions to Ask Yourself:

- Is there associated ptosis
- Is there anisocoria
- Is there any eyelid movement (ie: aberrant regeneration) with downgaze or Adduction
- Is it comitant
  - What is comitant again?!
  - When the prismatic measurement is the ~same in every direction of gaze
- Was Parks-Bielschowsky an Olympic cross-country skier?

Multiple Cranial Nerves???

1. Orbital Apex
2. Cavernous Sinus





Netter, Frank H. Atlas of Human Anatomy. 2nd ed., Novartis, 1997. Plate 98, Head and Neck.

Most Common Causes of Cranial Neuropathies (Adults)

CN	GOLD	SILVER	BRONZE
III	Ischemic	Aneurysm / Compressive	Trauma
IV	Trauma	Ischemia	Congenital
VI	Ischemia	Trauma	Many

Differential Dx of Cranial Neuropathies

- D - demyelinating (MS, MOG, NMO)
- I - infectious (TB, Syphilis, Lyme, HIV, HSV, VZV)
- V - vasculitis (GCA, ANCA, SLE, etc.)
- I - ischemic (HTN, DM, CAD, etc.)
- N - neoplastic (tumor, mets, schwannomas, leptomeningeal dz)
- I - infiltrative (lymphoma, leukemia, germinoma)
- T - trauma
- I - iatrogenic
- C - compressive (aneurysm, meningioma, hemorrhage, vascular malformation)

Locations: midbrain, pons, skull base, cavernous sinus, orbital apex

Cranial Neuropathy Work-Up (Adults)

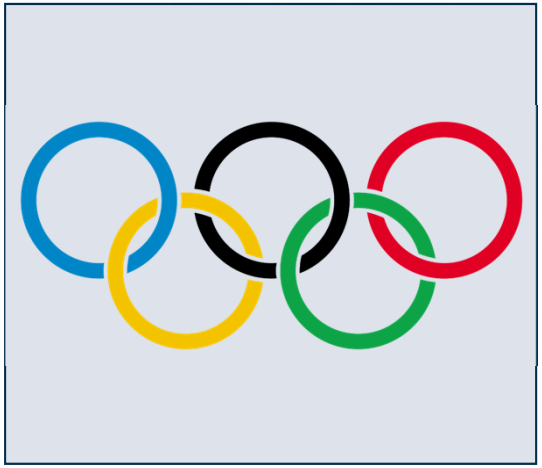
- MRI brain WWO
- MRA or CTA (CN III with Pupil)
- CBC, CRP, ESR
- Syphilis & TB
- Acetylcholine Receptor Antibody Panel
- Thyroid Testing (TSH, TSI, Thyroglobulin Ab)

HOW DID WE DO...

AI Image generated by Gemini 3, Google, Feb 2026.

Image adapted from: https://www.aol.com/articles/olympic-gold-medal-really-worth-130000637.html?utm_source=spotim&utm_medium=spotim_recirculation&spot_im_comment_id=sp_IjnMf2Jd_23501346_c_4CW0IC&spot_im_highlight_immediate=true. Accessed Feb 2026

GIANT CELL ARTERITIS	UNILATERAL DISC EDEMA	BILATERAL DISC EDEMA
		



HEADACHE	CRANIAL NEUROPATHIES
	

AI Image generated by Gemini 3, Google, Feb 2026.

ARE YOU ON THE PODIUM?

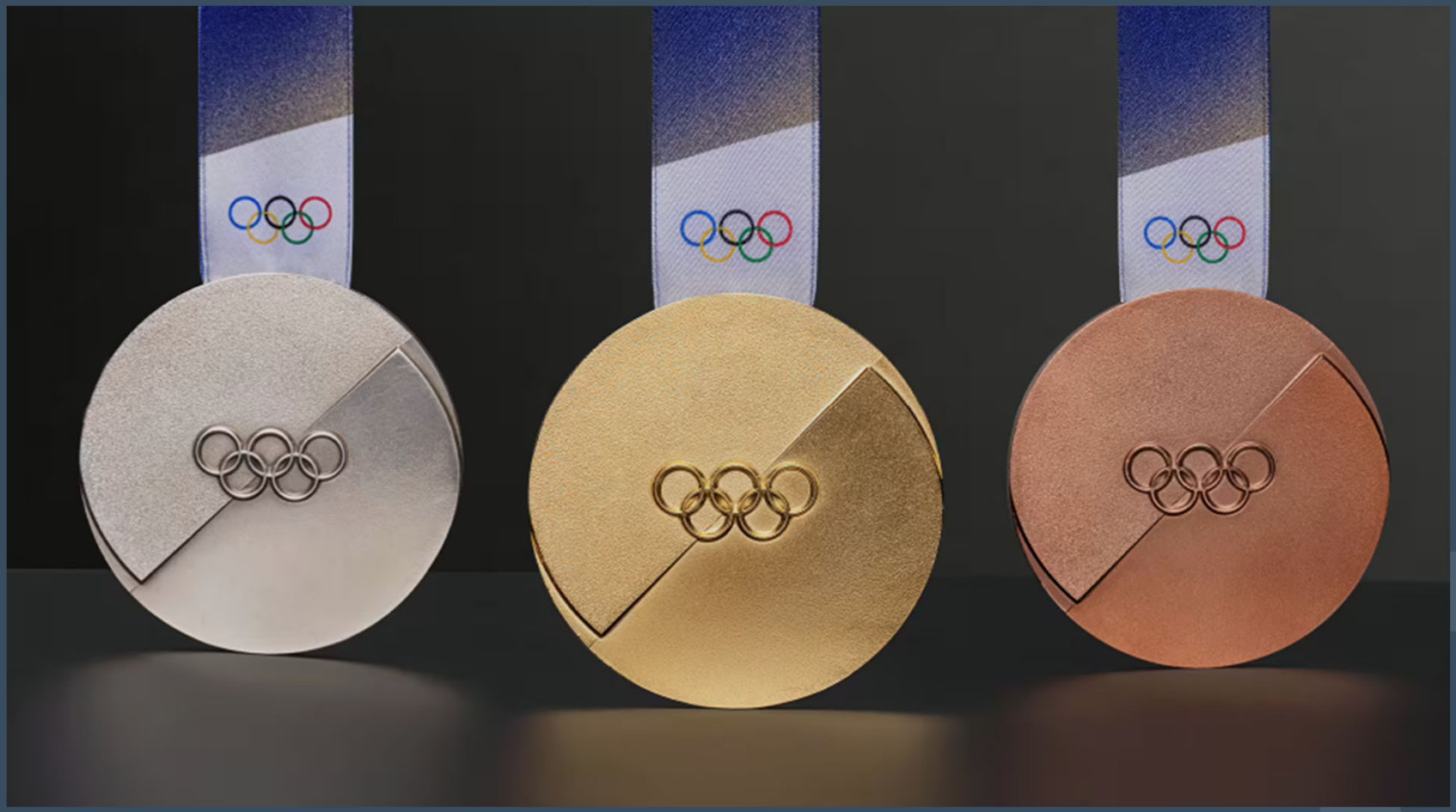


Image adapted from: https://nationaljeweler.com/articles/14108-2026-winter-olympic-medal-design-symbolizes-unity. Accessed Feb 2026

WE ARE OLYMPIC NEURO-OPHTHALMOLOGISTS

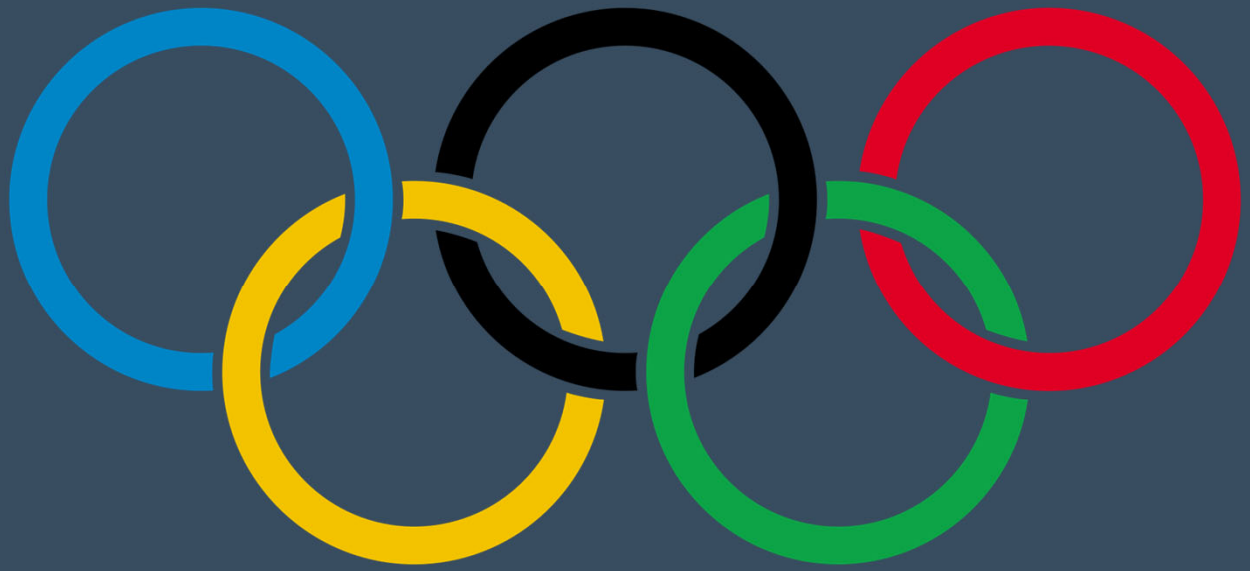


Image Adapted from: https://commons.wikimedia.org/wiki/File:Olympic_rings_with_transparent_rims.svg. Accessed Feb 2026.

WE ARE OLYMPIC NEURO-OPHTHALMOLOGISTS

AI Image generated by Gemini 3, Google, Feb 2026.

THANK YOU!!

Personal Image Adaptation: https://www.nbcuniversal.com/article/how-watch-milan-cortina-2026-olympic-winter-games-across-nbcuniversal. Accessed Feb 2026