Eyecare Peer Review C-109148

Zach Cairns BSc(Hons) Prof Cert Glaucoma







History

16yo, Female Reason for visit: Gradual Photophobia, irritation and vision not as sharp over 1-1.5 years. Spectacles "helps a little"

POH: Nil, No HES no prev infection, injuries or surgery. Mild dry eye - using lubricants as required

FOH: NIL

Mild hayfever Medications: AntiH as required PGH:





Examination:

Vision: SPX – 6/12 old RE: +0.50/-0.75x90 VA 6/12 " not clear" LE: +0.75/-1.00x 85 VA 6/12 " not clear" PinHole – 6/12 each eye

CT: small XOP good recovery at D&N
Pupil: PERRL No RAPD
IOP: R 14mmHg L 14mmHg





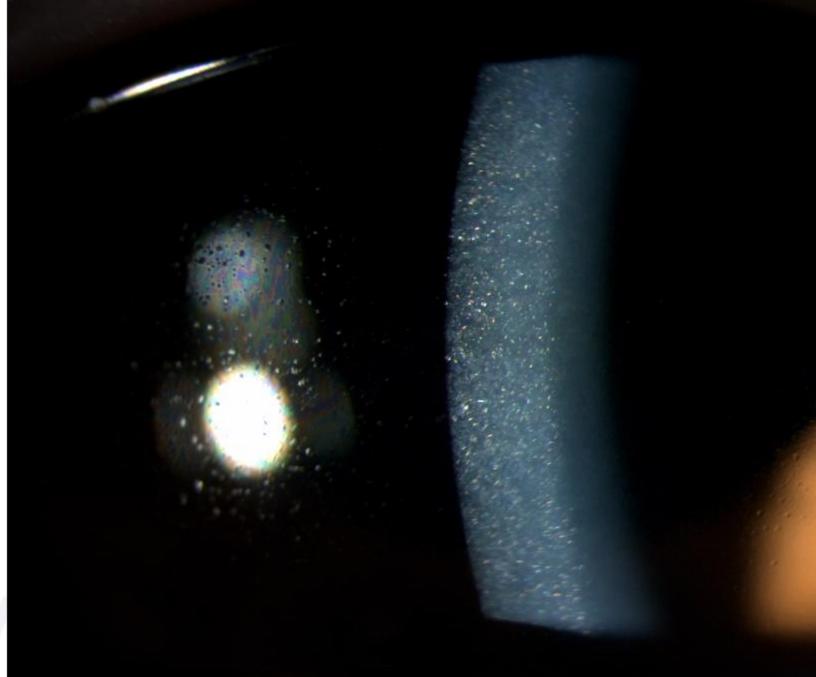


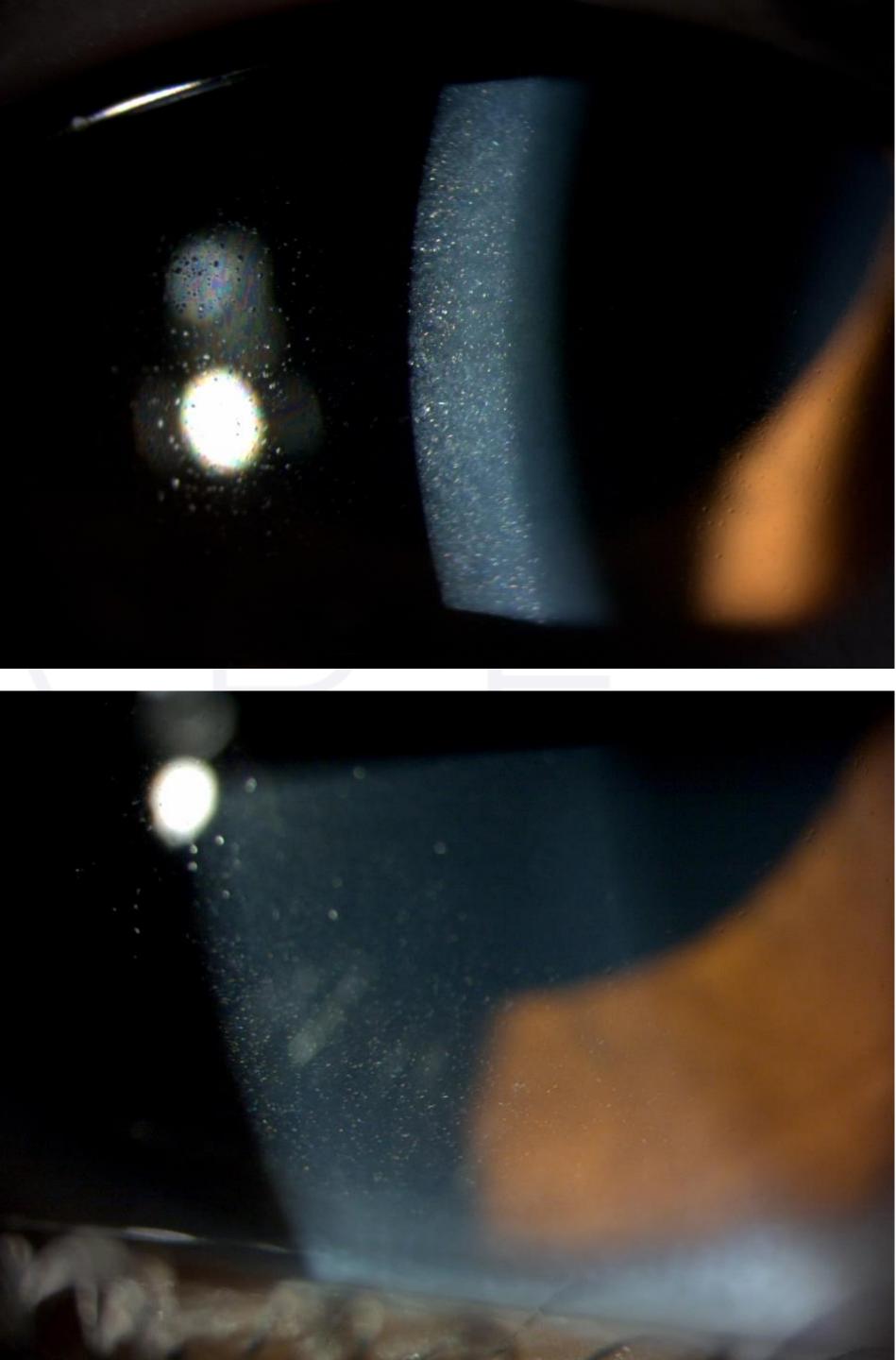
Examination: Anterior Eye

Slit-lamp examination:

Lids: Normal R+L, MGD NIL **Cornea:** No epithelial defects bilateral, diffuse, fine, white crystals on the central cornea Sub-epithelial? **ITBUT:** 7 seconds both eyes **Conj:** white and healthy AC: Deep and quiet Lens: clear

There were no signs of inflammation or other ocular abnormalities.





Examination: Posterior Eye

Hazy view Both eyes **Retina flat and healthy – R+L** C:D 0.3 NRR healthy R+L

There were no signs of inflammation or other ocular abnormalities.







Anterior Eye deep dive AS-OCT or Confocal microscopy

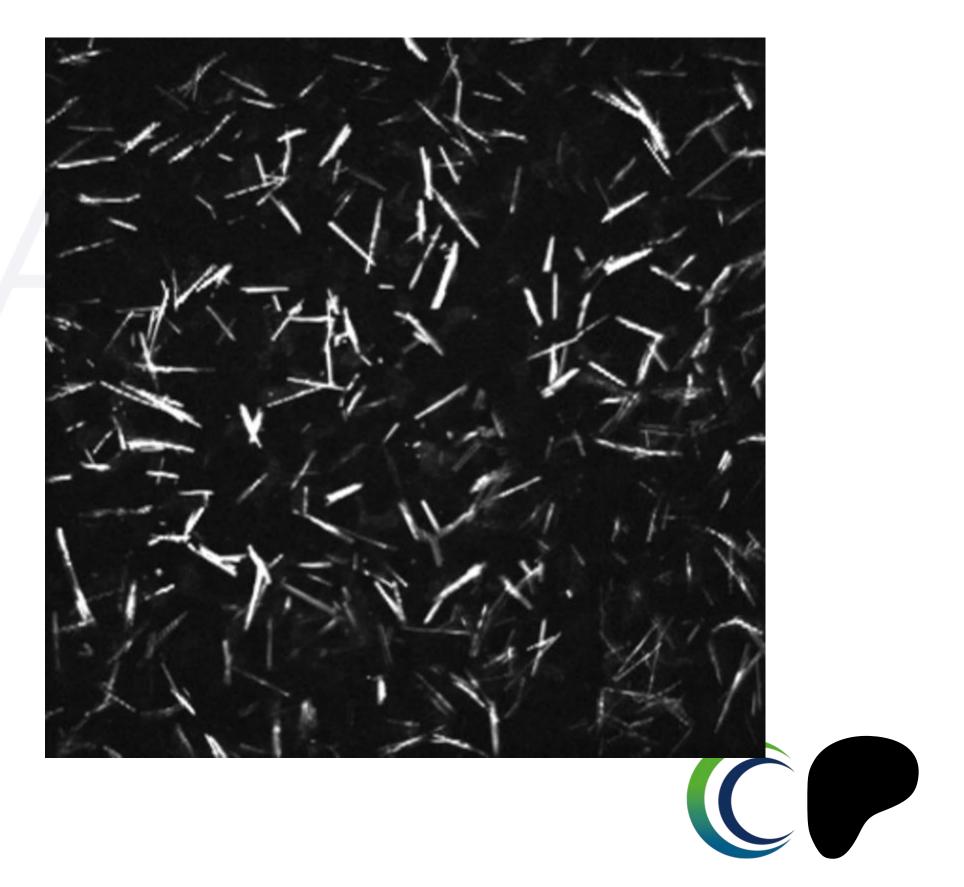
Bilateral, diffuse, fine, white crystals on the central cornea

AS-OCT or Confocal microscopy

Hyperreflective crystals - Limbus to limbus

70-120 Micron depth







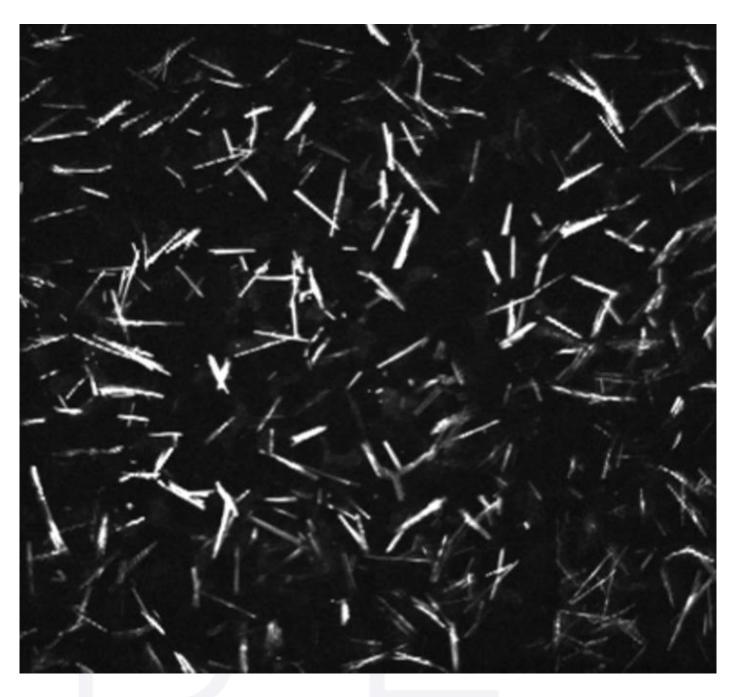
Discussion Point

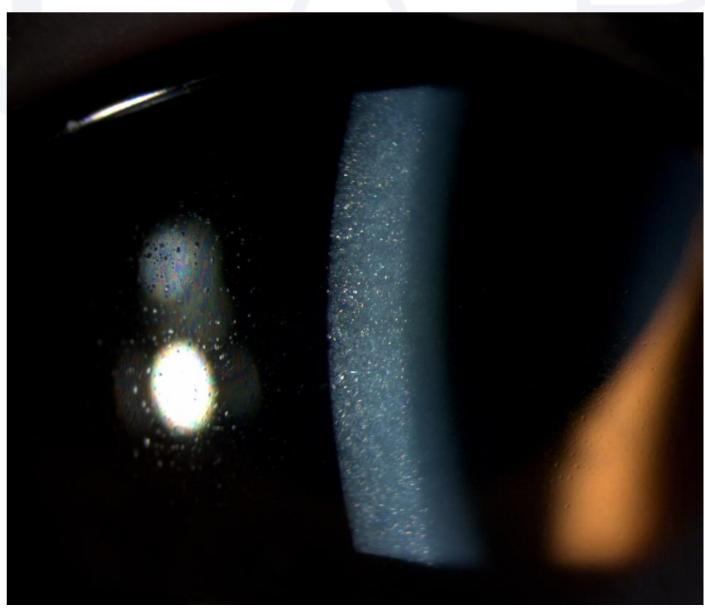
Epithelium or Stromal issue?

Differential diagnosis?

Diagnosis?

Referral/ Investigation?







References

Shah R, Amador C, Tormanen K, Ghiam S, Saghizadeh M, Arumugaswami V, Kumar A, Kramerov AA, Ljubimov AV. Systemic diseases and the cornea. Exp Eye Res. 2021 Mar;204:108455. doi: 10.1016/j.exer.2021.108455. Epub 2021 Jan 21. PMID: 33485845; PMCID: PMC7946758.

Csorba A, Maka E, Maneschg OA, Szabó A, Szentmáry N, Csidey M, Resch M, Imre L, Knézy K, Nagy ZZ. Examination of corneal deposits in nephropathic cystinosis using in vivo confocal microscopy and anterior segment optical coherence tomography: an age-dependent cross sectional study. BMC Ophthalmol. 2020 Feb 26;20(1):73. doi: 10.1186/s12886-020-01336-w. PMID: 32102651; PMCID: PMC7045449.

Kruse F, Keidel LF, Priglinger S, Luft N, Priglinger C. Corneal Manifestation in Patients with Infantile Nephropathic Cystinosis. Klin Monbl Augenheilkd. 2023 Mar;240(3):260-265. English. doi: 10.1055/a-2020-0926. Epub 2023 Jan 25. PMID: 36696914.

Biswas S, Alzahrani K, Radhakrishnan H. Corneal Densitometry to Assess the Corneal Cystine Deposits in Patients With Cystinosis. Cornea. 2023 Mar 1;42(3):313-319. doi: 10.1097/ICO.0000000000000161. Epub 2022 Dec 12. PMID: 36729708.



eilkd. 8 Mar

OCT Case Review

Hamza Mussa BSc(Hons) MCOptom Prof Cert Med Ret







Patient: Name: John Snow 58 Year Old Age: **Gender: Male**

Reason for Visit: John Snow presents to practice with complaints of gradual worsening of his vision over the past two years. He reports difficulty reading and recognizing faces, despite wearing his prescription glasses. His vision seems particularly blurry in the center of his visual field.





History and Symptoms

Reason for Visit:

in vision. He does not see floaters or flashes of light. There is no history of trauma to the eyes.

Type 2 DM diagnosed 2009, Hypertension, Hyperlipidemia GH: **Medication:** Metformin, Lisinopril, Atorvastatin, Aspirin No HES besides DRS, no prev infection, injuries or surgery OH: FH: No relevant FH **Occupation:** Accountant **Driver**: Yes Lifestyle: Skiing, Fencing

John first noticed a slight blurring of his central vision about two years ago, which he initially attributed to aging. However, the blurring has progressively worsened, and he now finds it challenging to perform tasks such as reading small print or working on his computer. He denies experiencing any pain, redness, or sudden changes





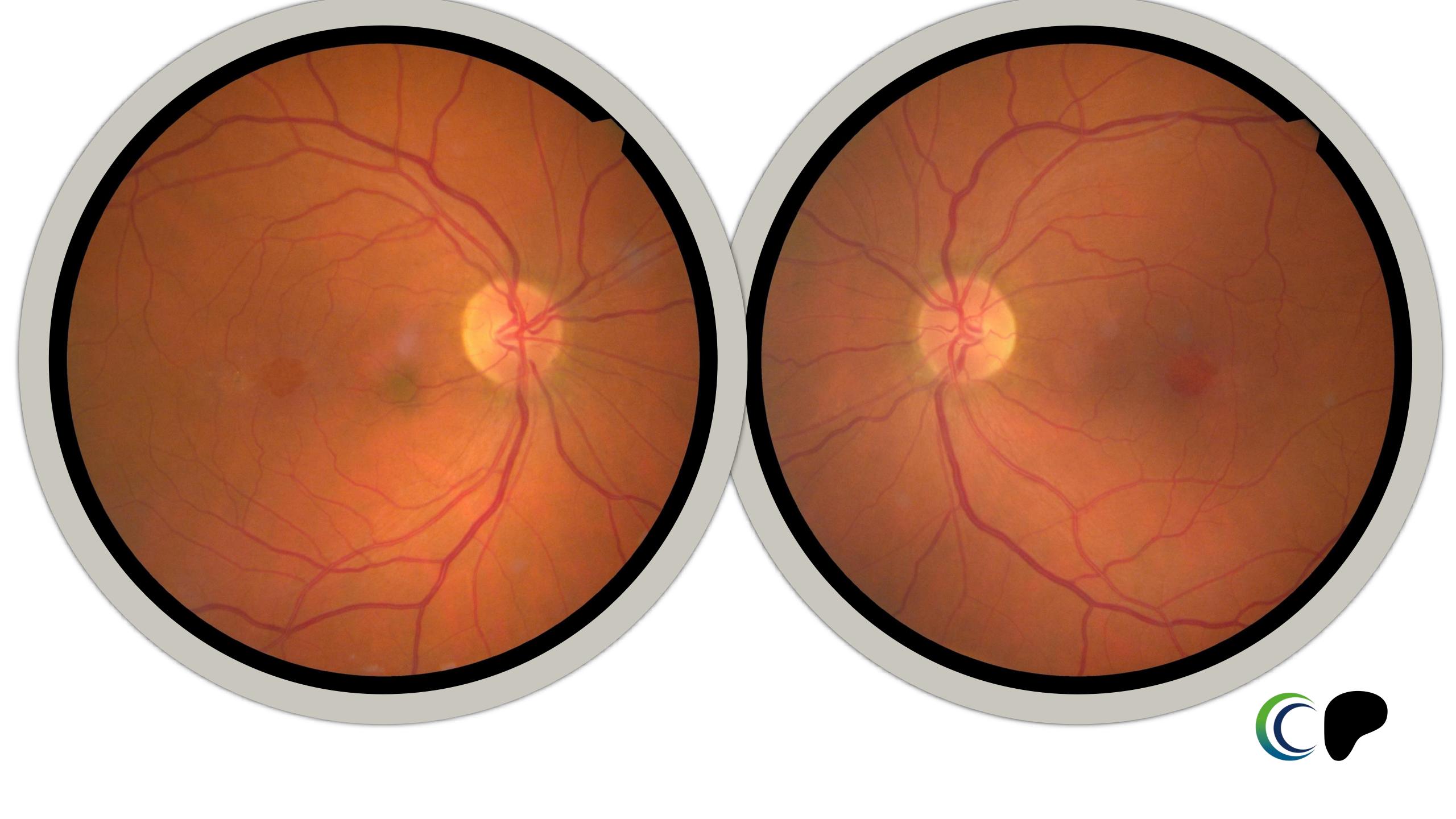
Examination:

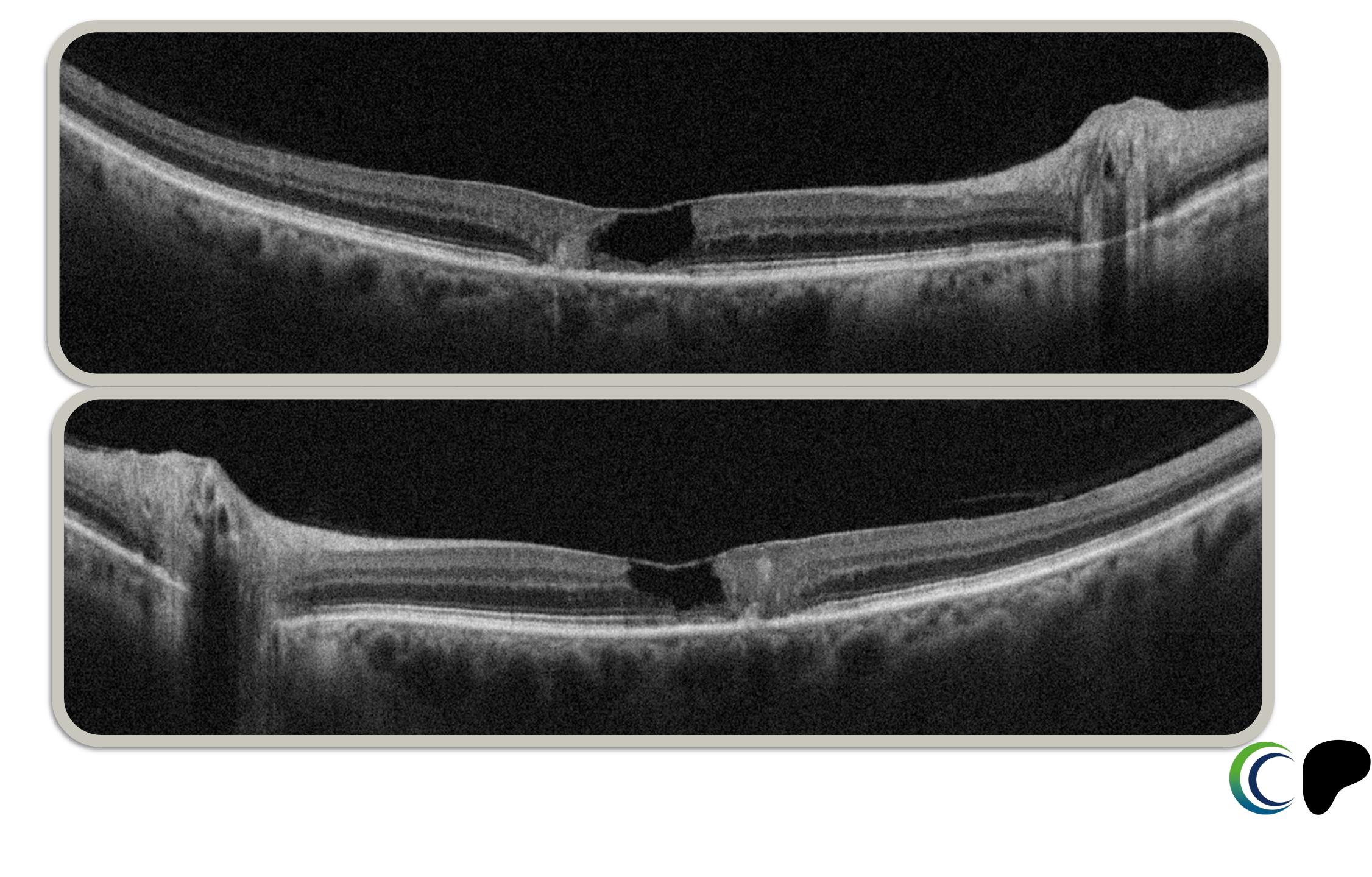
VA: R 6/12-2 L 6/12-3 BE: 6/12 small XOP good recovery at D&N CT: PERRL No RAPD **Pupil:** R 15mmHg L 13mmHg **IOP**:

Anterior Segment: Unremarkable **Fundus:** See Images See Images OCT:

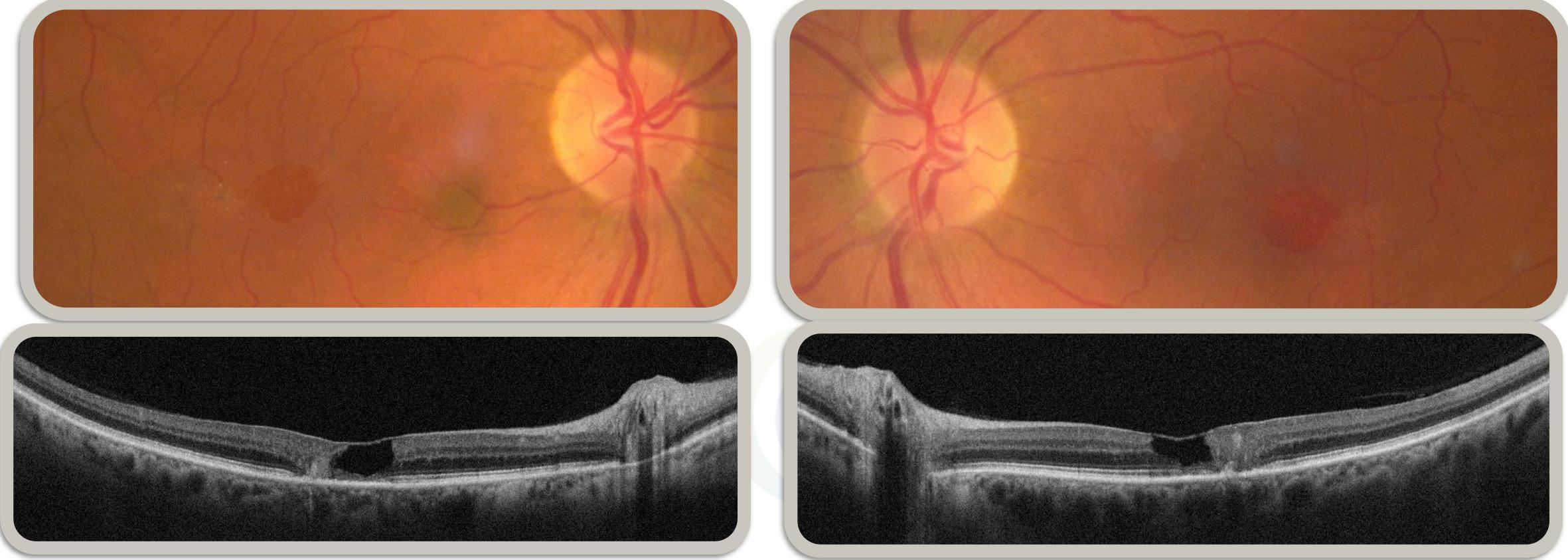
















Discussion Points

From the history and symptoms give a differential diagnosis? Describe the fundus picture? Describe the OCT? What is your diagnosis? What is your management?





References

https://eyewiki.aao.org/Macular_Telangiectasia

1. Clemons TE, Gillies MC, Chew EY, Bird AC, Peto T, Wang JJ, Mitchell P, Ramdas WD, Vingerling JR; Macular Telangiectasia Project Research Group. Medical characteristics of patients with macular telangiectasia type 2 (MacTel Type 2) MacTel project report no. 3. Ophthalmic Epidemiol. 2013 Apr;20(2):109-13.

2. Wu L, Evans T, Arevalo JF. Idiopathic macular telangiectasia type 2 (idiopathic juxtafoveolar retinal telangiectasis type 2A, Mac Tel 2). Surv Ophthalmol. 2013 Nov-Dec;58(6):536-59.

3. Charbel Issa P, Gillies MC, Chew EY, Bird AC, Heeren TF, Peto T, Holz FG, Scholl HP. Macular telangiectasia type 2. Prog Retin Eye Res. 2013 May;34:49-77.

4. Kedarisetti KC, Narayanan R, Stewart MW, Reddy Gurram N, Khanani AM. Macular Telangiectasia Type 2: A Comprehensive Review. Clin Ophthalmol. 2022 Oct 10;16:3297-3309.

5. Heeren TFC, Chew EY, Clemons T, Fruttiger M, Balaskas K, Schwartz R, Egan CA, Charbel Issa P; MacTel Study Group. Macular Telangiectasia Type 2: Visual Acuity, Disease End Stage, and the MacTel Area: MacTel Project Report Number 8. Ophthalmology. 2020 Nov;127(11):1539-1548.

https://www.aao.org/eye-health/diseases/macular-telangiectasia#:~:text=Injections%20of%20a%20drug%20called,endothelial%20growth%20factor%2C%20or%20VEGF.



roiect

KC or Not KC - Thats the Question Case 3

Dr Keyur Patel





Presentation

MW 15 yo WF was initially referred for an Ophthalmology consultation by her optometrist as a suspect KC. -

'they were concerned about changing prescription and potentially decreased BCVA'

Having been seen and reassured that there was no KC, they presented to us for a CL re-fit.





At CL refit appointment, they reported;

Currently wearing Proclear XR Toric - not happy visually. Vision get worse the older the lens.'

Currently studing for GCSEs

Hobbies: Horse Riding, Hockey, Netball

FOH: M - Hyperopic Astigmat, MGF - Strab, MGM - sudden loss of vision (CRAO)

Meds: Lamotrigine, Lymecyline

NKDA





Currently Wearing;

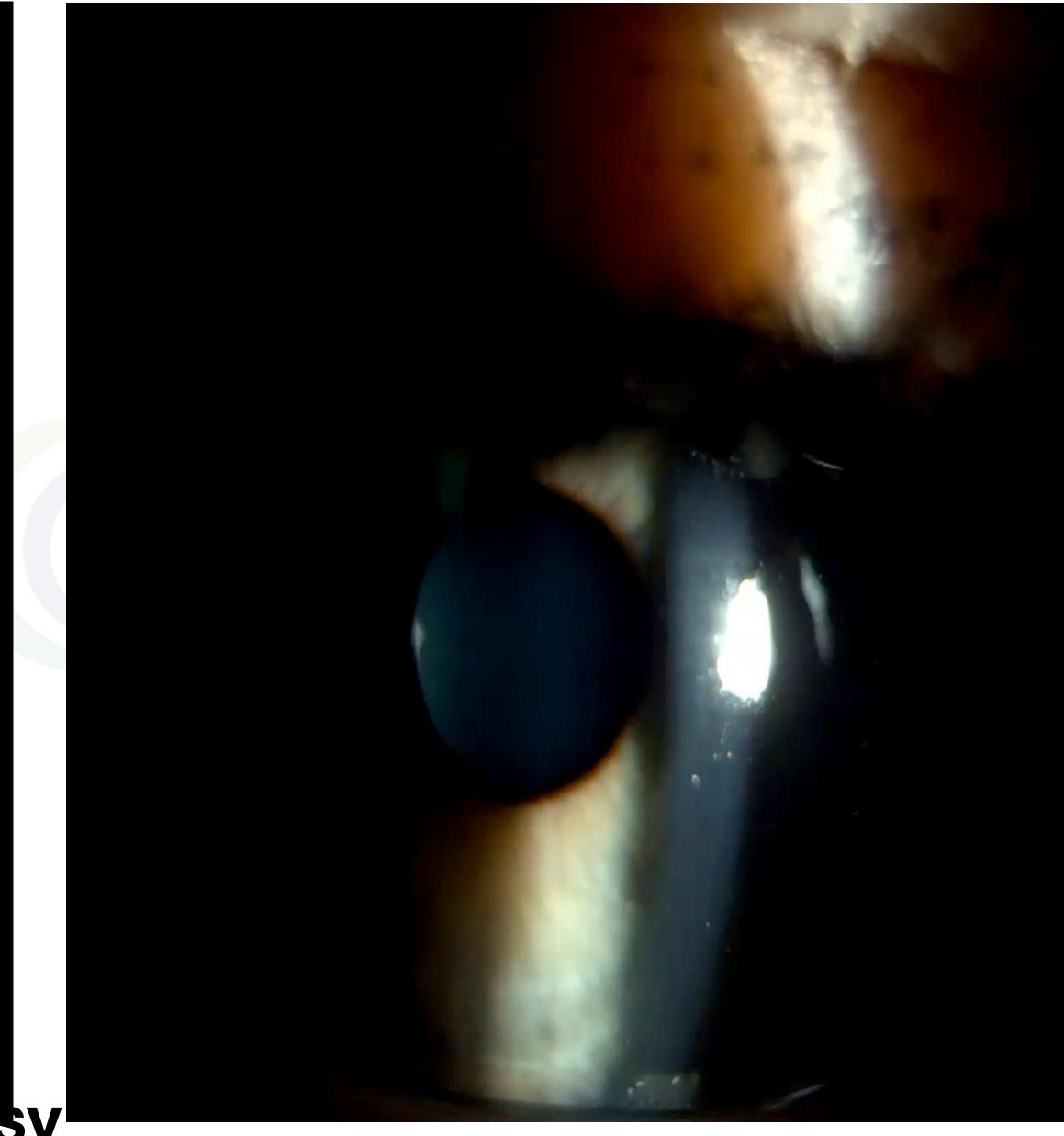
Cooper Vision, Proclear XR Toric $R + 5.00 / -5.75 \times 10$ $L + 4.25 / -5.25 \times 175$ Current lenses about 3/52 Using Multipurpose cleaning solution from previous provider



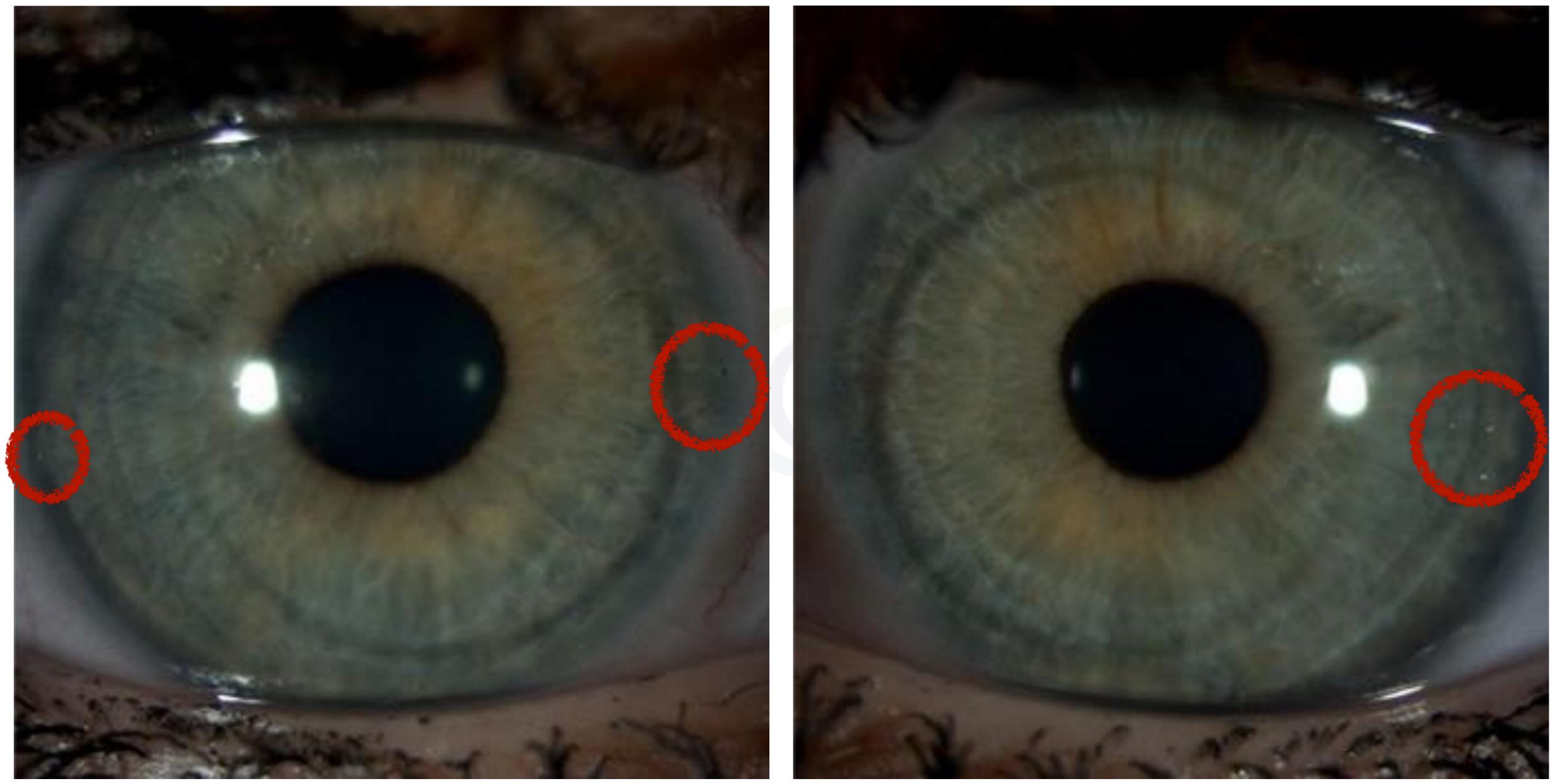




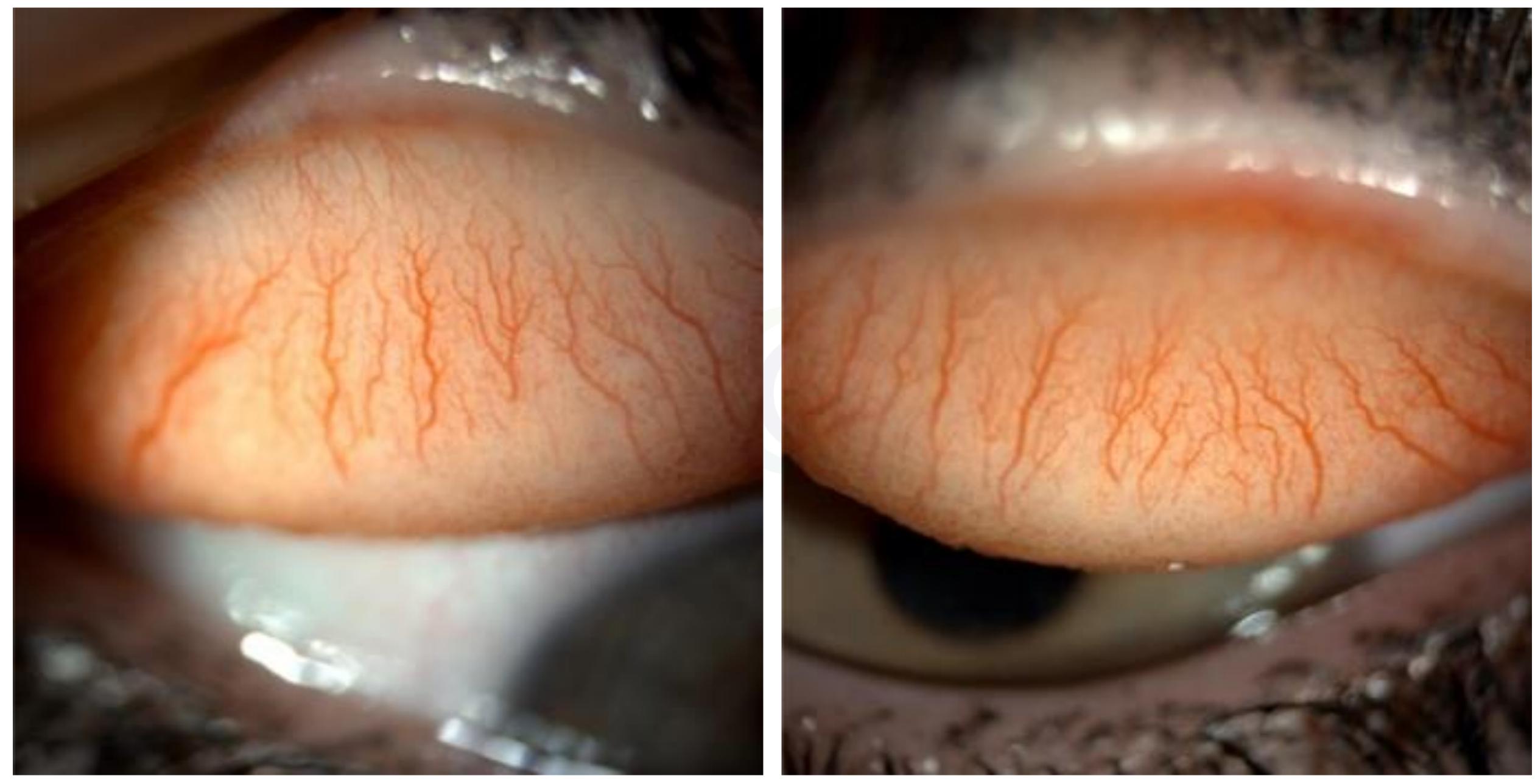
Tears







Lens Deposits



Papilliae – grading scales – 1-2 Efron R+L

Management by Me

1) Re-order Proclear Toric, and order **Bioinfinity Toric**

When lenses arrive, then can send to Px

2) Switch make-up to EATS, Peroxide Care Solution and advised Hycosan Dual



and then needs to wear in preferred option





Review Appointment

Preferred Proclear Toric vs Bioinfinity Vision not ideal though RE 6/15; O/R +1.75/-2.00 x145; VA 6/7.6-LE 6/9.5+; O/R +1.25/-1.50x27; VA 6/7.6-Order New Trials with O/R incorporated





Review Appointment 2

RE 6/9.5; O/R +0.75; VA 6/7.6-LE 6/9.5; O/R +0.75; VA 6/7.6-Advised to report and if happy with new Rx can order Anti-Fatigue plano Add +1.50 for conc tasks.





Disussion Point

What signs would you look for in KC? What additional tests would/could you perform? What is Lamotrigine? What is Lymecycline? Causes and DDX? Management Options?





References

*https://coopervision.co.uk/contact-lenses/proclear-toric

*<u>https://eyewiki.aao.org/Keratoconus</u>

* Rueff EM, Sinnott LT, Bailey MD, *et al.* The similarity between symptoms of binocular vision disorders and dry eye. *Investigative Ophthalmology & Visual Science*. 2014;55:1990. * Seth I, Bulloch G, Vine M, *et al.* The association between keratoconus and allergic eye diseases: A systematic review and meta-analysis. *Clin Exp Ophthalmol*. 2023;51:O1–16. doi: 10.1111/ceo.14215 *Sullivan DA, da Costa AX, Del Duca E, *et al.* TFOS Lifestyle: Impact of cosmetics on the ocular surface. *Ocul Surf*. 2023;29:77–130. doi: 10.1016/j.jtos.2023.04.005 * Craig JP, Alves M, Wolffsohn JS, *et al.* TFOS Lifestyle Report Executive Summary: A Lifestyle Epidemic - Ocular Surface Disease. *Ocul Surf*. 2023;30:240–53. doi: 10.1016/j.jtos.2023.08.009 * Unni P, Lee HJ. Systemic Associations with Keratoconus. *Life (Basel)*. 2023;13:1363. doi: 10.3390/life13061363 * Jaiswal S, Asper L, Long J, **et al.** Ocular and visual discomfort associated with smartphones, tablets and computers: what we do and do not know. Clin Exp Optom. 2019;102:463–77. doi: 10.1111/cxo.12851 *Hashem AO, Aziz BF, Wahba SS, *et al.* Diagnostic accuracy of different keratoconus detection indices of pentacam in paediatric eyes. *Eye*. 2023;37:1130–8. doi: 10.1038/s41433-022-02070-x * Sedaghat M-R, Momeni-Moghaddam H, Roberts CJ, *et al.* Corneal biomechanical parameters in keratoconus eyes with abnormal elevation on the back corneal surface only versus both back and front surfaces. Sci Rep. 2021;11:11971. doi: 10.1038/s41598-021-91263-7 *Rueff EM, King-Smith PE, Bailey MD. Can Binocular Vision Disorders Contribute to Contact Lens Discomfort? Optom Vis Sci. 2015;92:e214-221. doi: 10.1097/OPX.0000000000000000671 Bilstein A, Heinrich A, Rybachuk A, *et al.* Ectoine in the Treatment of Irritations and Inflammations of the Eye Surface. *Biomed Res Int*. 2021;2021:8885032. doi: 10.1155/2021/8885032 *<u>https://bnf.nice.org.uk/drugs/lamotrigine/#indications-and-dose</u>

*https://bnf.nice.org.uk/drugs/lymecycline/#indications-and-dose



