

Learning objectives for the evening.

1. Cover some of the factors that influence a decision to treat rather than refer a patient.
2. Understand how varied the presentation of Herpetic eye disease can be.
3. Recognise two relatively benign presentations that can require referral
4. Assess and manage appropriately ocular chemical trauma
5. Become aware of some adverse outcomes to glaucoma treatment
6. Manage the immediate and long-term complications of Herpes Zoster Ophthalmicus

Can I treat this patient?

Previously known as

“Do I have to refer this patient?”

Questions I ask myself

- Diagnosis?
- Can I treat it?
 - Provide a prescription for suitable topic agent
 - Will the local pharmacy have it in stock?
 - Can the condition be treated with topical agents alone?
- Is travel to an ophthalmologist convenient?
 - Echuca is at least 3 hours from RVEEH
 - 1 hour from nearest Mon/Fri Ophthalmologist

87 year old male

PC woke yesterday with a blurry left eye, right feels normal

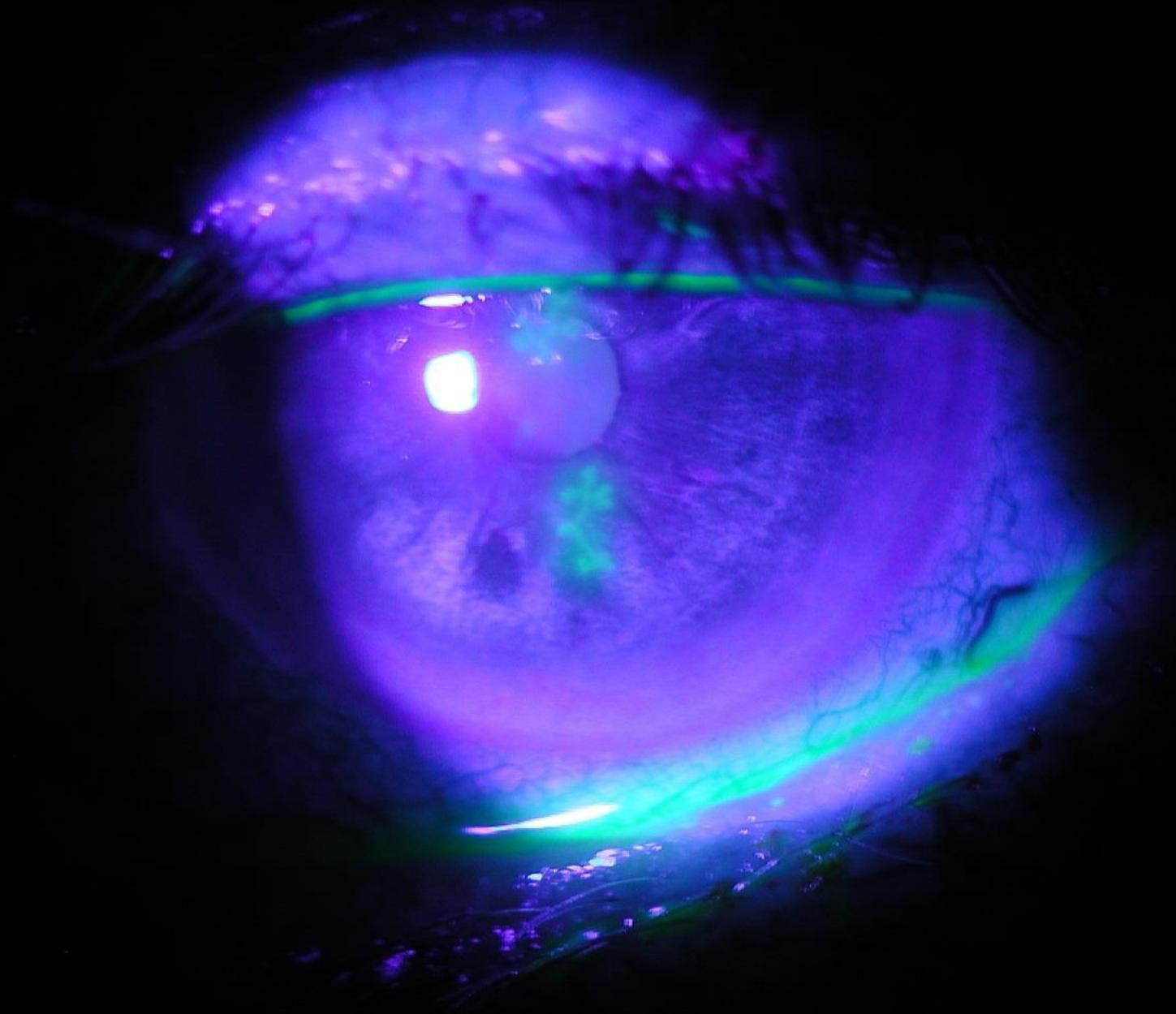
POH left eye HSV keratitis 2008

Currently taking Ganfort[©] (bimatoprost with timolol) and sees an ophthalmologist.

GH no medication? Does he really see a GP?

87 year old male

- Unaided VA 6/19 6/30
- Aided VA 6/15 6/24-
- PH VA 6/24-



Can I treat this patient?

- Diagnosis of HSV epithelial keratitis
 - DDx of HZO ruled out
- His ophthalmologist visits from Melbourne in 10 days
 - Rang the ophthalmologist
 - who recommends roll with cotton bud for debridement. Aciclovir 5x daily, rev this week.

Getting better.

- Aciclovir left eye for 3 days
- NaFl less staining in left eye
- Plan keep up Aciclovir, cease Ganfort © for a few days. He will not miss it for three days and his epithelial keratitis is better off without it.
- Sees his ophthalmologist locally in 7 days.

Glaucoma drops and inflammation

- Australian Medicines Handbook has a warning about Prostaglandin analogues
“History of herpetic keratitis—use with caution as reactivation may occur. Avoid use if herpetic keratitis is active.”
- Conjunctival proinflammatory and proapoptotic effects of latanoprost and preserved and unpreserved timolol: an ex vivo and in vitro study. Invest Ophthalmol Vis Sci. 2004 May;45(5):1360-8.

72 year old “Jim” - day 1

PC Left eye feels like it has the same thing as May 2010.

POH 2009 treated by Dr X with Pred Forte and Timolol for herpetic uveitis.

May 2010 treated by Dr Y with Pred Forte and Timolol for herpetic uveitis.

72 year old “Jim” - day 1

Vis 6/19 right 6/19 left 6/15 OU

SL left circumlimbal hyperaemia, iris detail clear. Left pupil irregular and iris atrophy.

NaFl no staining.

IOP 21/24mmHg

Diagnosis Another episode of herpetic uveitis?

Patient does not want one hour drive, “You can treat me, can’t you.....”

The phone consult?

- Rang Dr Y and confirmed treatment plan, Pred Forte q1h, Timol bid and homatropine tid.
- Review tomorrow.

72 year old “Jim” - day 2

SL NaFl no staining

Left pupil dilated, iris defects visible on transillumination.

Pigment on lens from previous synechiae.

Less hyperemia

VA Left 6/12

Plan Reduce Pred to every 2 hours, keep up timolol bid and homatropine tid. Rev 3 days.

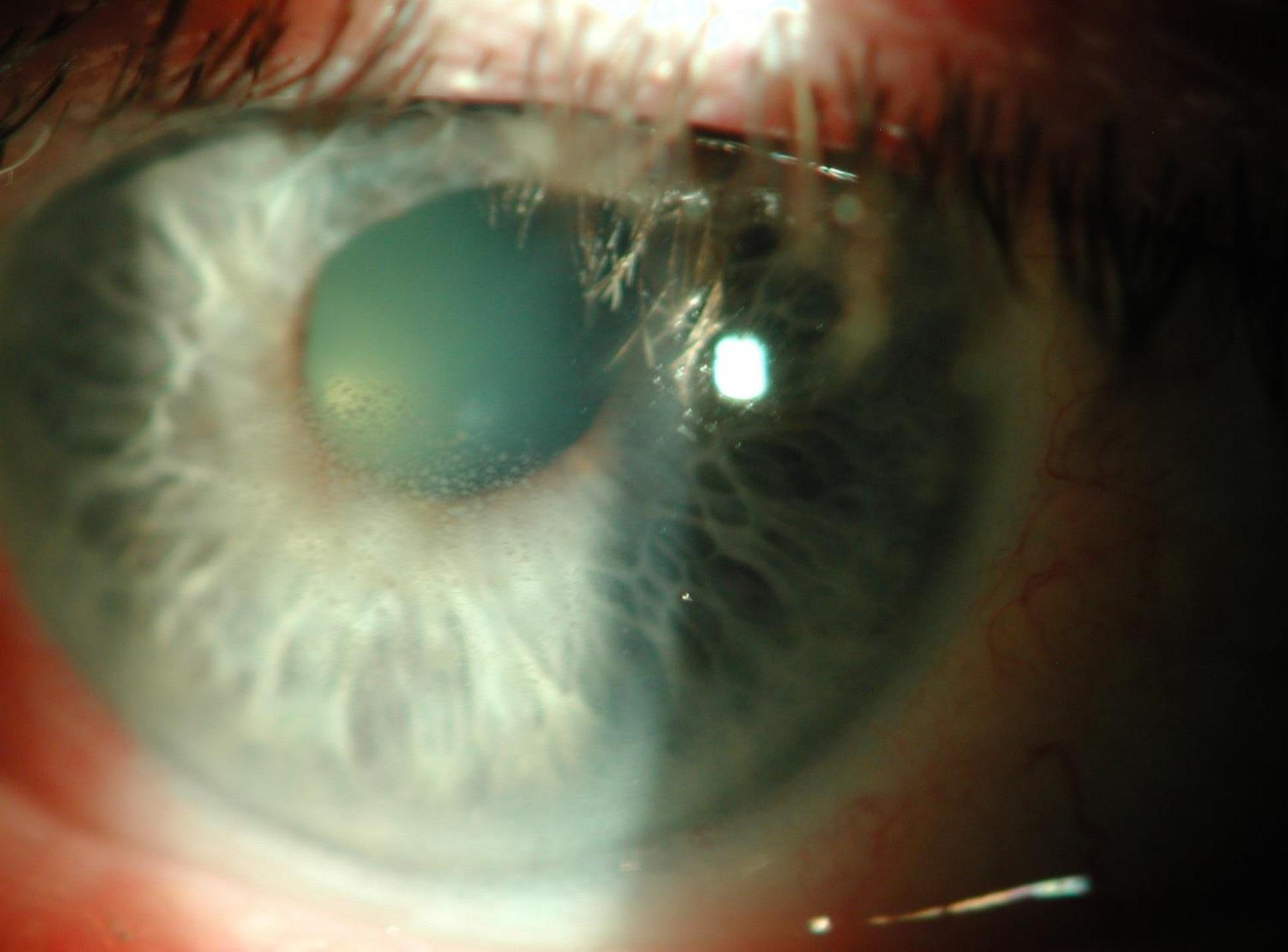
72 year old “Jim” - day 5

He feels better.

SL KP on inferior half of left cornea, NaFl NAD

IOP 20/20

Plan Cease homatropine, maintain Pred Forte every waking 2 hours, Timolol bid. Rev 3 days



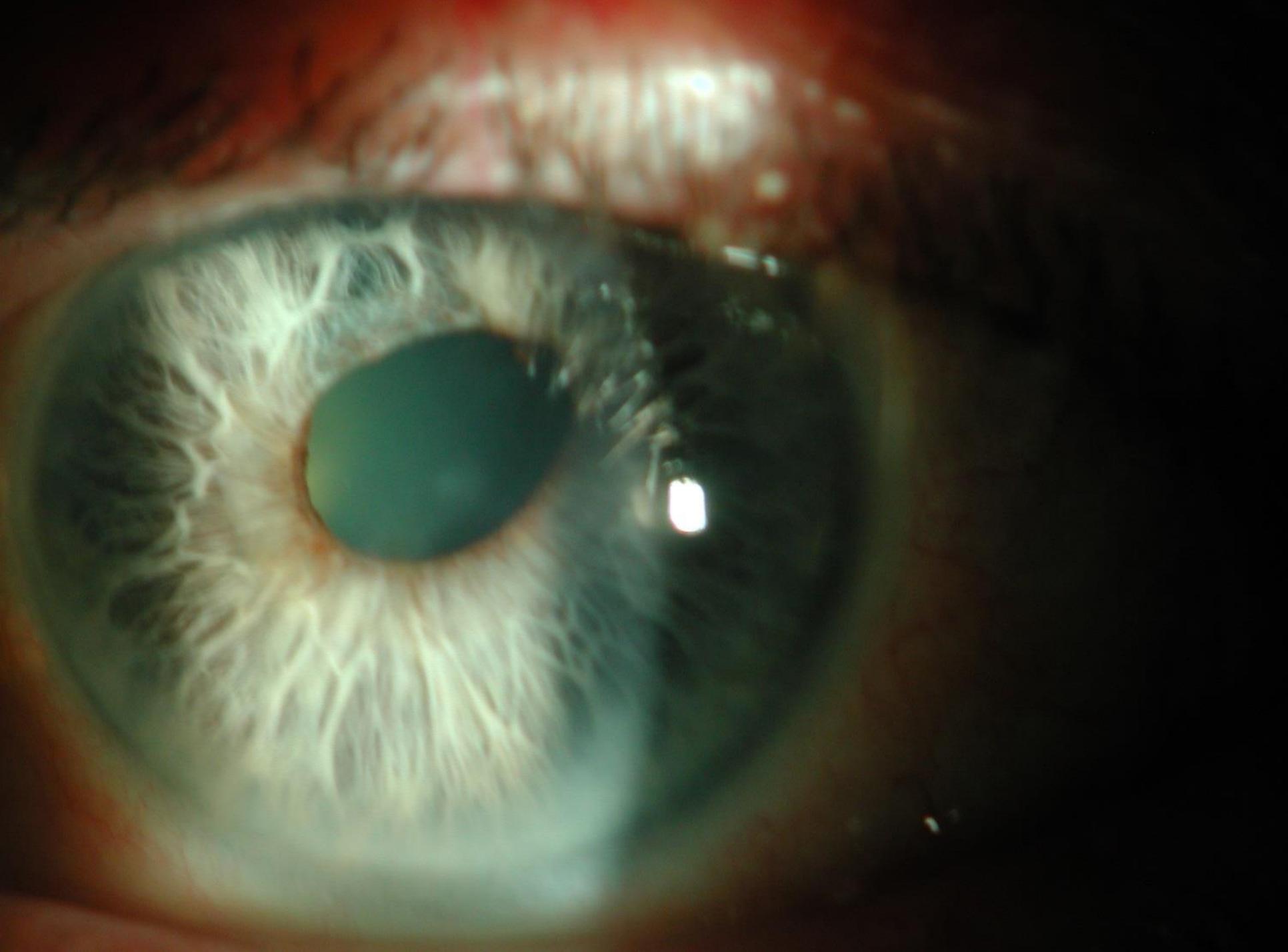
72 year old “Jim” - day 8

Rang Dr Y who recommends to keep current doses and admits it may not be herpetic.

Request HLA B27 and chest Xray from local GP

Review Monday morning.

Email Slit lamp images to Dr Y



72 year old “Jim” - day 11

SL left cornea has no KP, still old faint scar.

IOP 20/16

Reduce Pred to qid and keep Timolol bid.

Rev 1 week

72 year old “Jim” - day 18

Feeling "much better"

SL Left no cells or flare, nuclear sclerosis OU

IOP 20/16

Begin weaning Pred as advised by Dr Y

Keep on Timolol bid, reduce Pred to 3x daily one week, 2 times daily one week

Rev in two weeks - refer for cataract

80 year old “Jim” day 1

Had bilateral IOL surgery in 2015

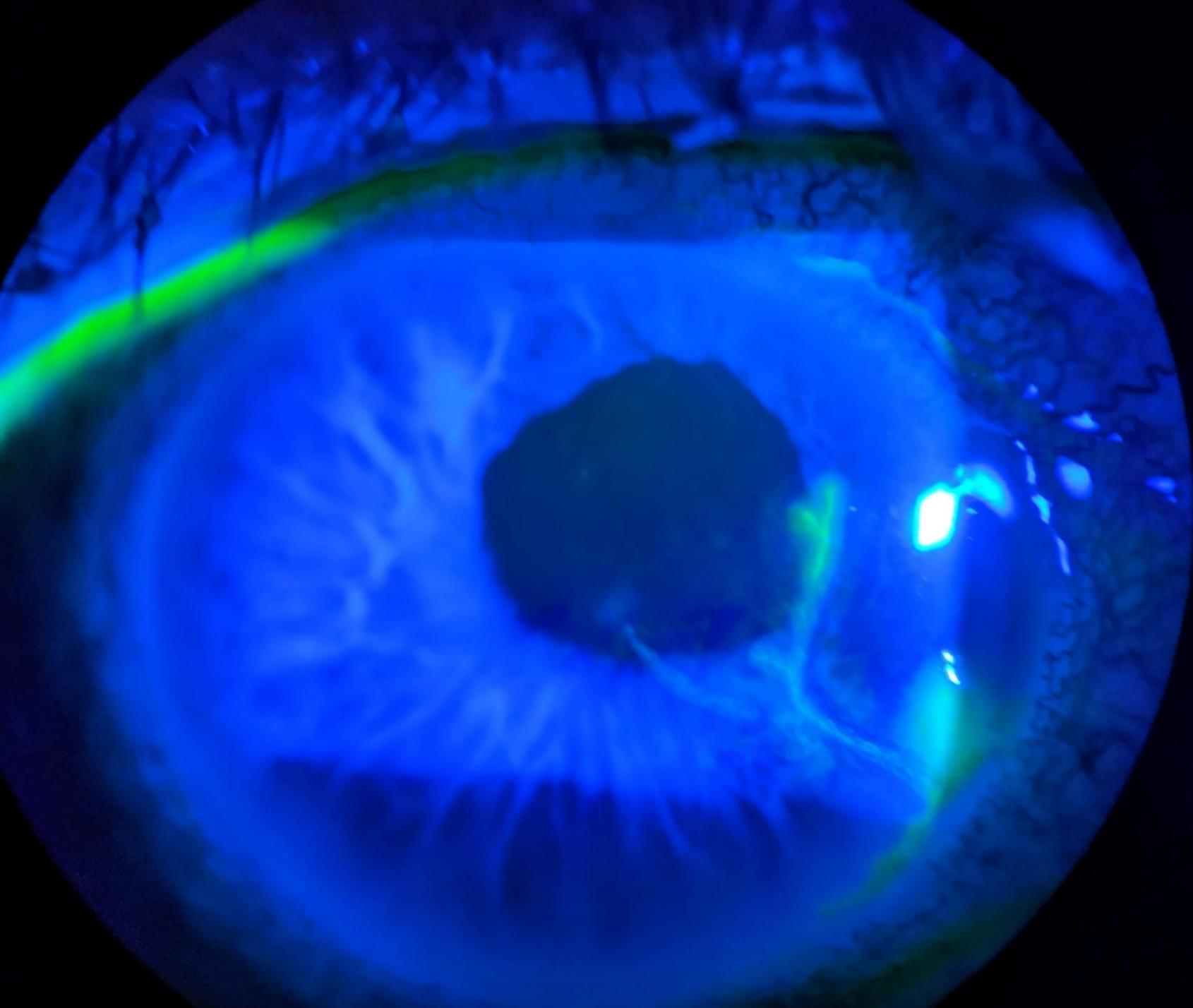
Had a heart attack in 2017

Left eye very red, but today no light sensitivity

Today unaided 6/9 R 6/19 L

Last year unaided 6/12 R 6/12 L

SL NaFL dendrite left eye, corneal thinning either side of the dendrite. left ectropian. No AC reaction, iris sectoral atrophy from prev iritis.



80 year old “Jim” day 1

When questioned he did say he had a cold sore on his lip on the left side recently.

Epithelial herpes simplex keratitis
AciVision 5x daily rev 3 days

80 year old “Jim” day 4

Redness has reduced with his wife applying
Aciclovir oint 5 x daily

NaFl healing, no signs of ulcer.

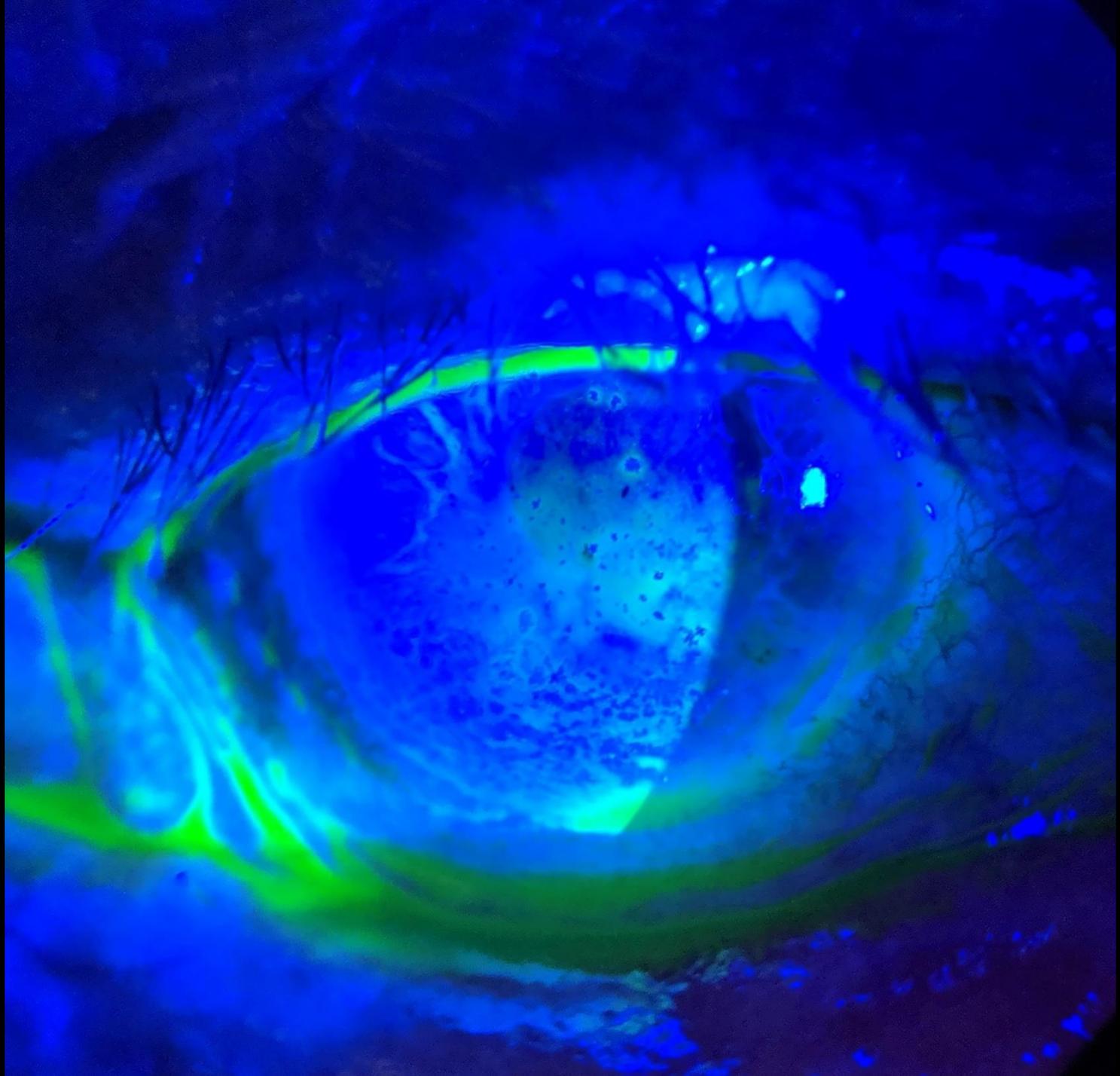
SPK mild

IOP 16/16

Unaided VA

6/9 R

6/24 L



80 year old “Jim” day 4

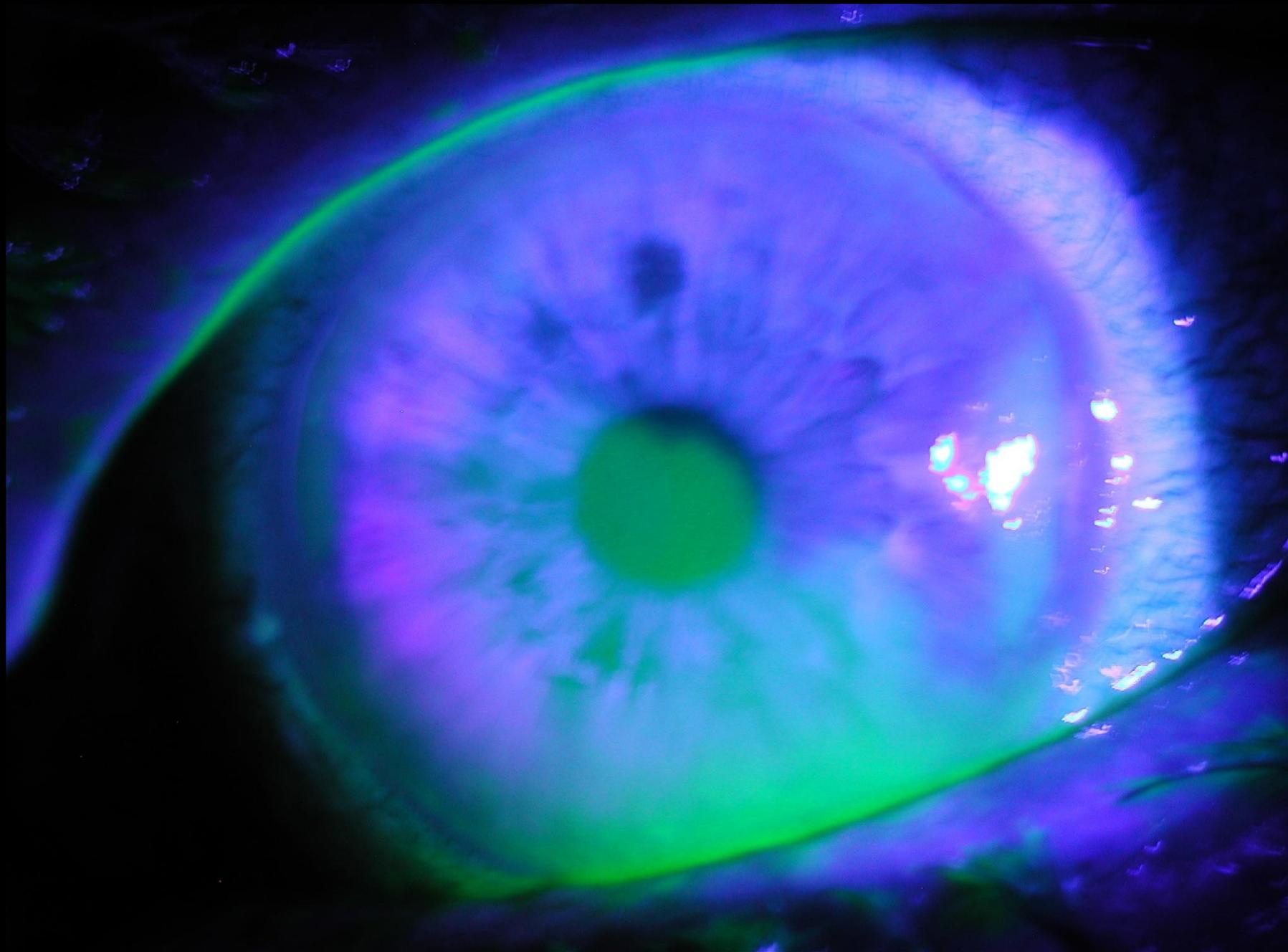
- Keep up oint tid 5 days.
- discuss with Jim and his wife likely loss of corneal sensation due to HSV, use lubricants SUD a lot.
- Rang Jim to follow up, reports white eye with good vision, will come in for a full review.

67 year old male - day 1

Washing face and got Q10 soap in the left eye, very sore and watery and light sensitive. He suspects scratch. Has done two saline washes

SL heavy stain, very red eye.
note dense stain at limbus.
Irrigated again with saline

PH VA 6/19



Roper Hall Classification for Ocular Surface Burns

Grade	Prognosis	Cornea	Conjunctiva/Limbus
I	Good	Corneal epithelial damage	No limbal ischemia
II	Good	Corneal haze, iris details visible	<1/3 limbal ischemia
III	Guarded	Total epithelial loss, stromal haze, iris details obscured	1/3-1/2 limbal ischemia
IV	Poor	Cornea opaque, iris and pupil obscured	>1/2 limbal ischemia

Dua Classification for Ocular Surface Burns

Grade	Prognosis	Clinical findings	Conjunctiva Involvement	Analogue Scale*
I	Very good	0 clock hours of limbal involvement	0%	0/0%
II	Good	< 3 clock hours of limbal involvement	< 30%	0.1-3/1-29.9%
III	Good	Between 3-6 clock hours of limbal involvement	30-50%	3.1-6/31-50%
IV	Good to guarded	Between 6-9 clock hours of limbal involvement	50-75%	6.1-9/51-75%
V	Guarded to poor	Between 9 and 12 clock hours of limbal involvement	75-100%	9.1-11.9/75.1-99.9%
VI	Very poor	Total limbus (12 clock hours) involved	Total conjunctiva (100%) involved	12/100%

*The analogue scale records the amount of limbal involvement in clock hours of affected limbus/percentage of conjunctival involvement. The conjunctival involvement should be calculated only for the bulbar conjunctiva, up to including the conjunctival fornices.

Q10 soap?

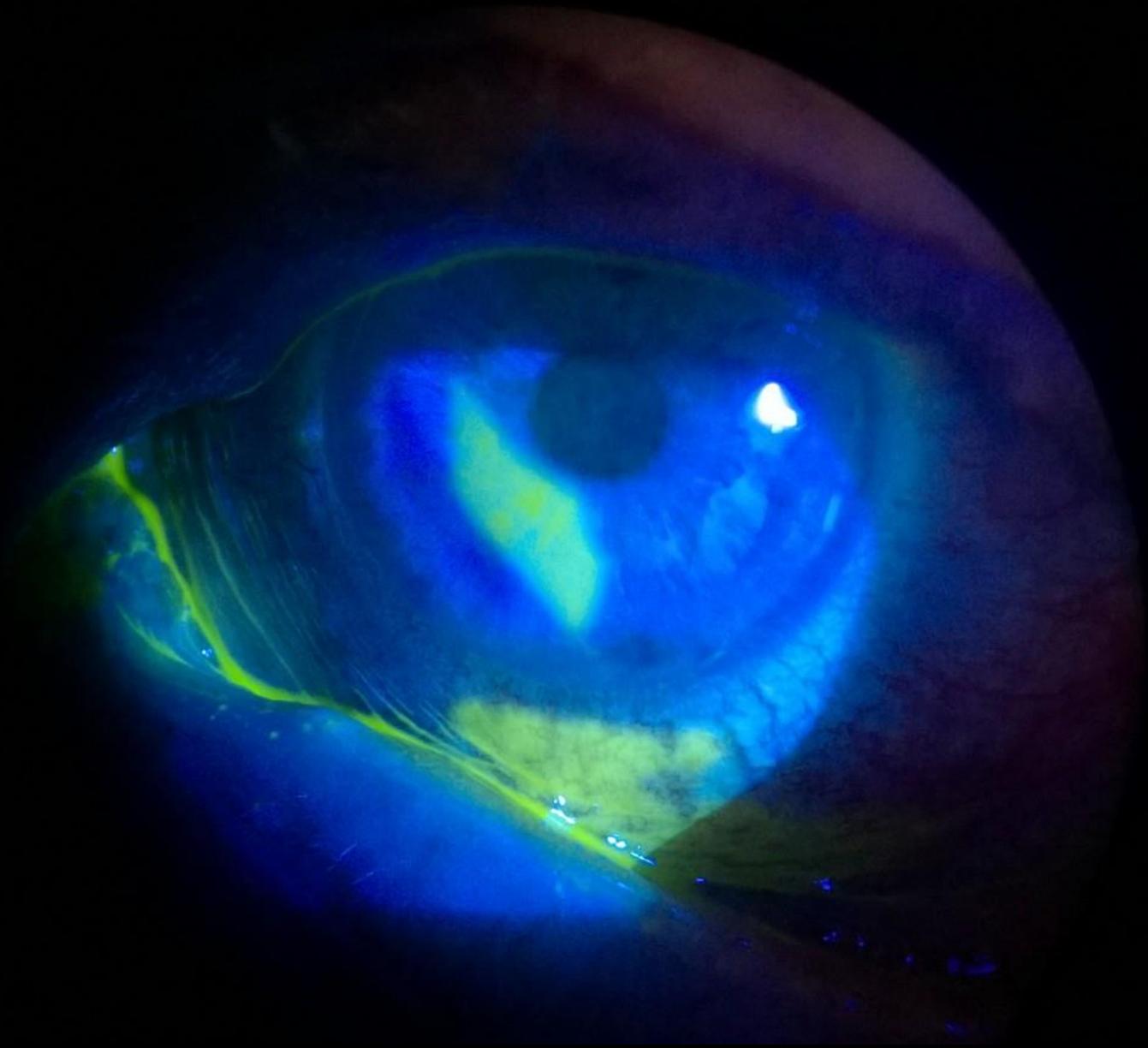
- Looks like a chemical burn...
- Grade I (Roper Hall classification)
- Topical antibiotic ointment four times a day
- Prednisolone acetate 1% four times a day
- Preservative free artificial tears as needed
- If there is pain, consider a short acting cycloplegic like cyclopentolate three times a day

67 year old male - day 1

- Treat under assumption it is a chemical burn
- Tx PredForte and Chlorsig qid
- Stop for now Combigan
- Rev tomorrow if worse

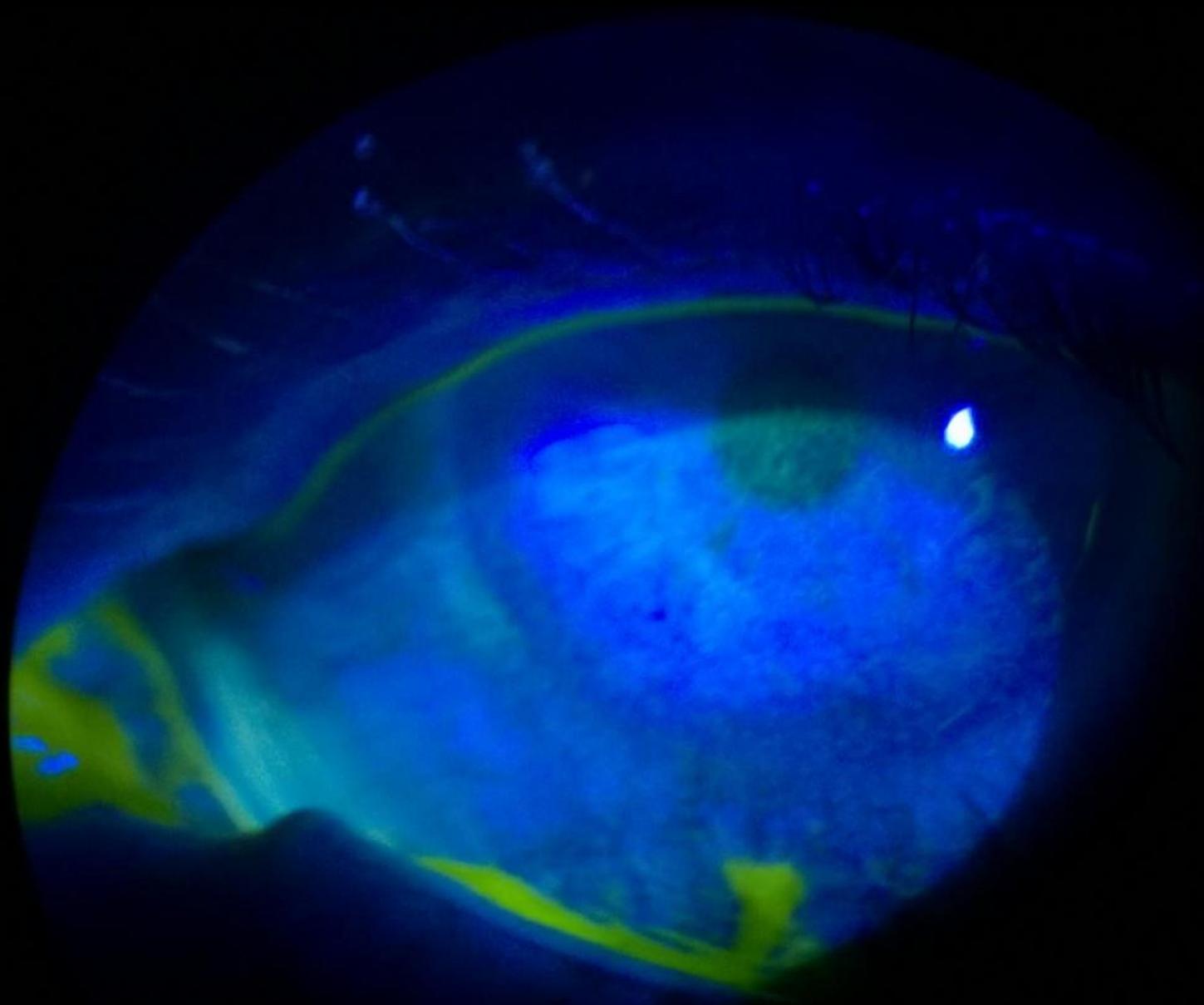
67 year old male - day 3

- Slept better last night. Hazy vision. Kept up drops yesterday and 7 am today. Now says it was QV hand wash (pH 6!).
- SL VH open left dense NaFL stain of defect.
- Note heavy inferior conjunctival stain. AC ok
- PH 6/24 ?!?
- Conjunctival stain fits with chemical injury
- Chlorsig ointment tid and Pred qid left
- rev late tomorrow



67 year old male - day 4

- Feels better today.
- NaFl only stains small inf conj. diffuse haze left.
- PH no improvement on unaided 6/19
- IOP 18/18
- Keep up Pred qid and chlorsig tid
- restart Combigan bid OU



67 year old male - day 10

- Hazy but feels ok. reading the paper now
- SL both eyes white now, NaFl fine SPK all over the left eye.
- IOP 16/16
- Cease oint rev one week
- Pred forte bid only left
- Cellufresh PRN
- PH 6/12

67 year old male - day 17

- SL left eye white
- NaFl minimal SPK OU
- Cease Pred, keep up single unit dose lubricants

Lessons I learnt from “soap in eye”

- Orange Power tile cleaner has a pH 1.8-2.5
- Even a low grade chemical injury can take 20 days to heal fully
- Potential long term complications include
 - Glaucoma in up to half of severe burns
 - Dry eye in even well healed eyes due to loss of conjunctival goblet cells
 - Damage to palpebral conjunctiva can lead to cicatricial entropion or ectropion weeks to months later

10 year old boy

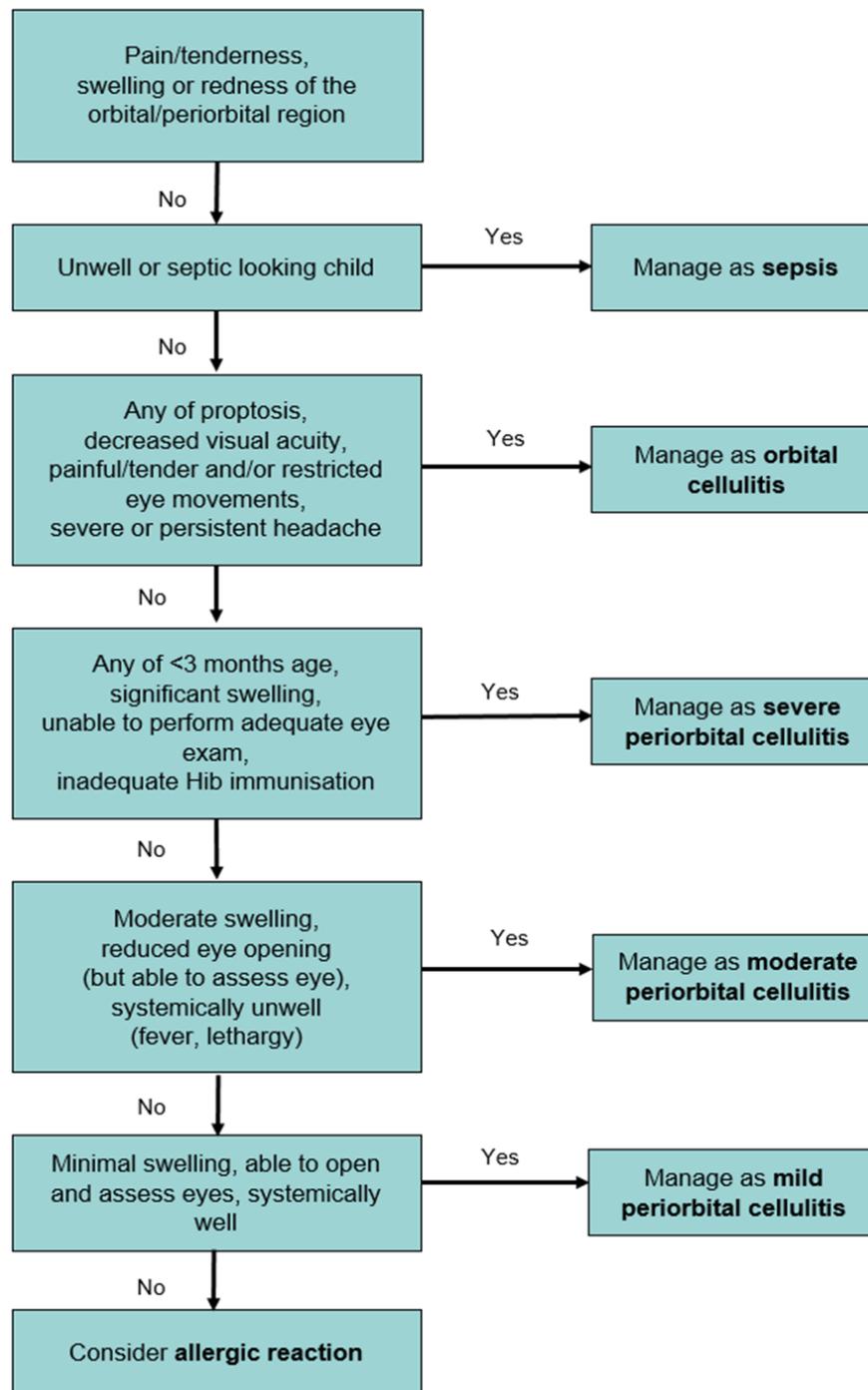
- GP Rx chlorsig eye drops 4 days ago for a stye(?)
- Second GP Rx oral cephalexin today.
- Went to pharmacist to have made up and it was recommended they see an Optometrist today!
- Had a cold the week before and has history of sinus infections

Orbital or Preseptal Cellulitis?

- SL left eye totally obscured by swelling top and bottom lid, held lid apart and noted white bulbar conjunctiva, AC quiet, and pupils responds.
- pain on eye movement!
- VA 6/6 6/12!
- Rang GP clinic urgently
- GP agrees he needs CT scan to rule out orbital involvement and possible intravenous antibiotic

Orbital or Preseptal Cellulitis (RCH)

- **Orbital cellulitis**
 - infection within the orbit, (i.e. **postseptal**, the structures posterior to the orbital septum)
 - the majority (>80%) of cases relate to local sinus disease
- **Periorbital cellulitis**
 - infection of the eye lids and surrounding skin not involving the orbit
- **The globe is not involved in either infection**



Orbital or Preseptal Cellulitis (RCH)

- **Orbital Cellulitis**
- Admission
- Keep fasted until need for surgery clarified
- Consider urgent contrast enhanced CT scan of orbits, sinuses +/- brain
- Antibiotics IV
- **Periorbital Cellulitis (Severe)**
- Management as per orbital cellulitis

What treatment did he get?

- Four days in Bendigo Hospital on IV antibiotics
- Nine months later presented for general check
- VA 6/6 right and left, 6/5 binocular

66 year old male - day 1

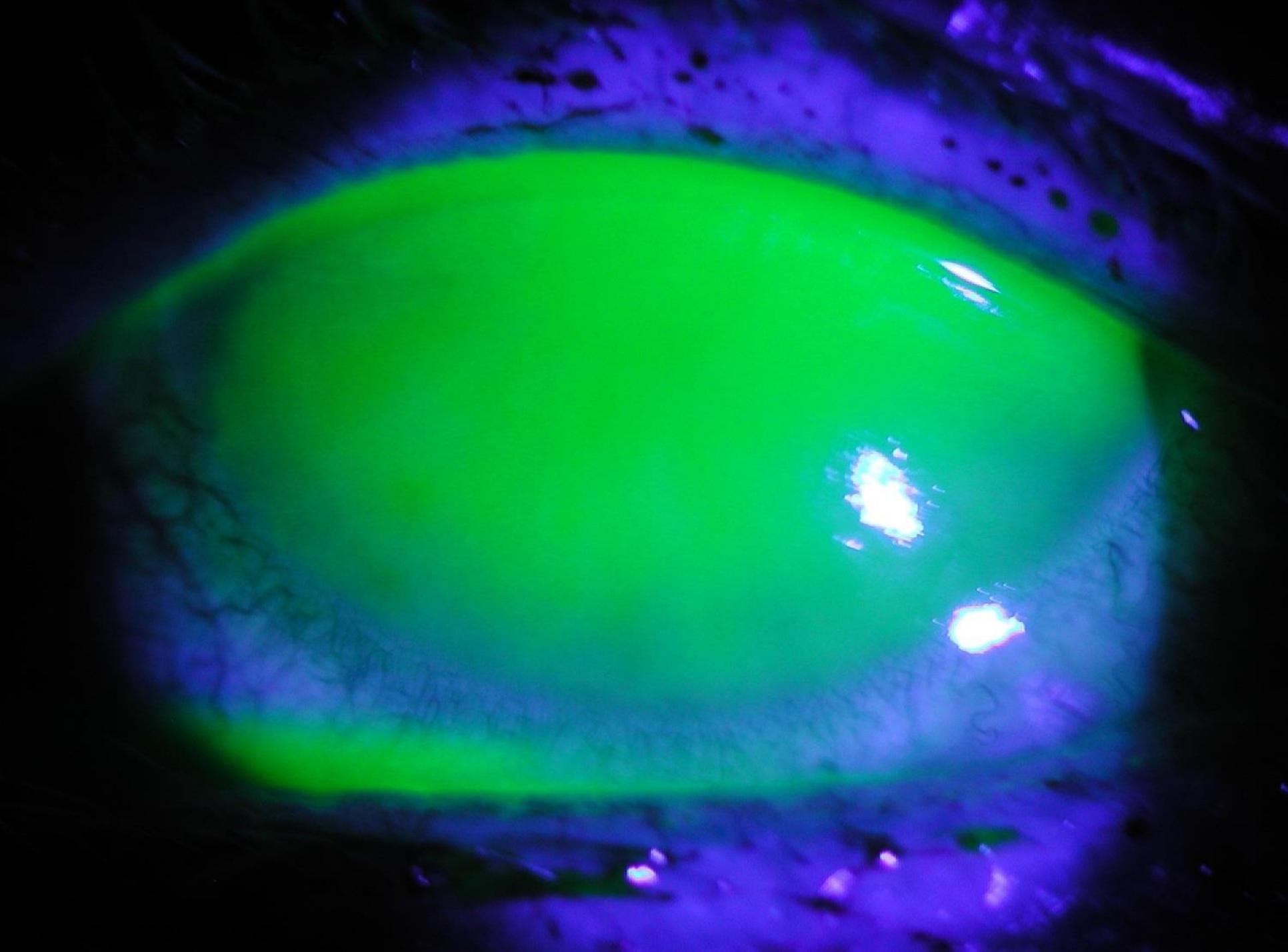
Woke up in middle of night LE burning, went back to sleep woke up at 6:30 still painful.

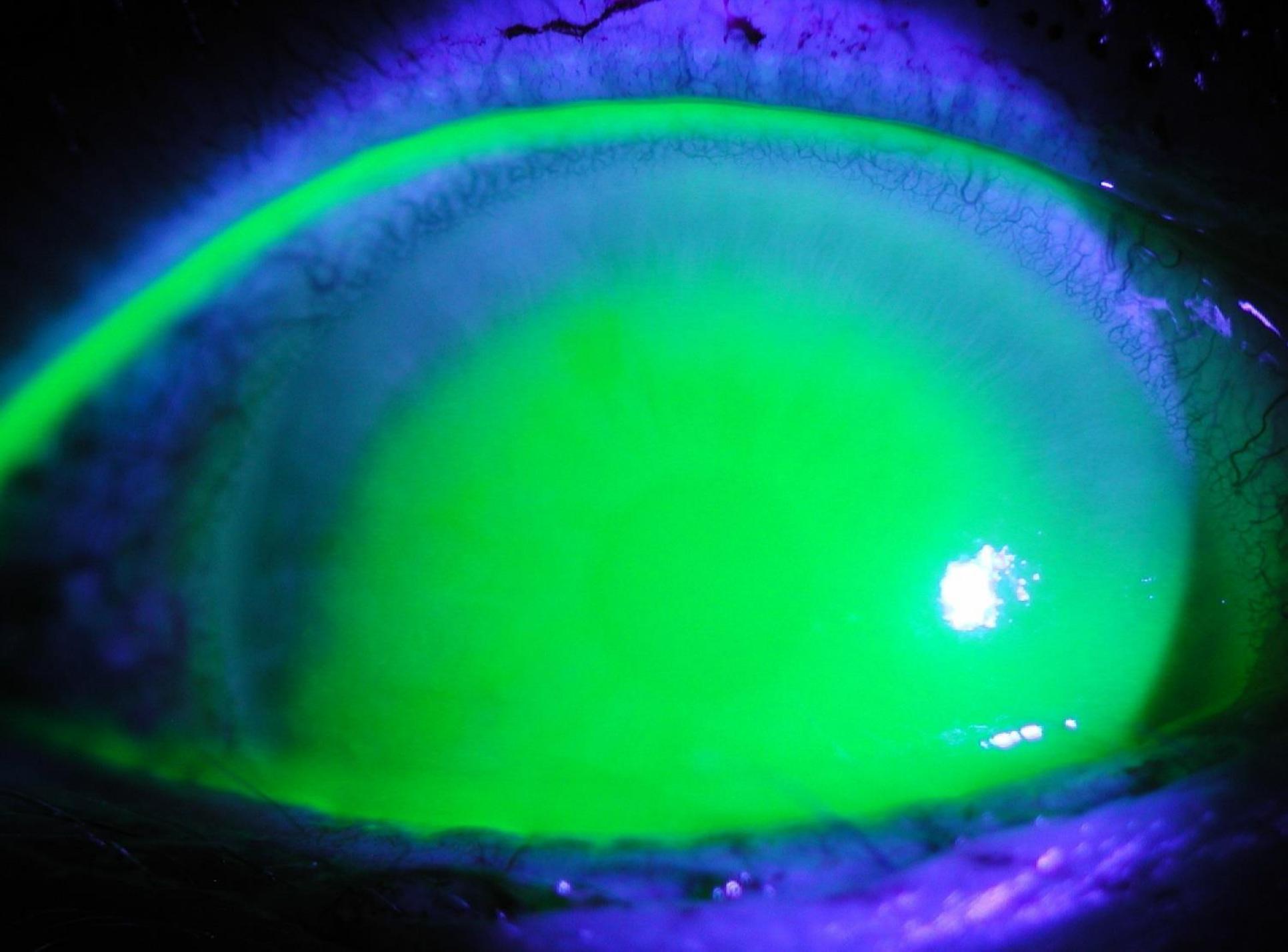
Saw Hospital Emergency Department.

Nothing found, was given Chlorsig.

Very painful, was fine when went to bed last night.

Very photophobic cannot keep his eye open.





Do I refer this patient?

Diagnosis was Christmas eye.

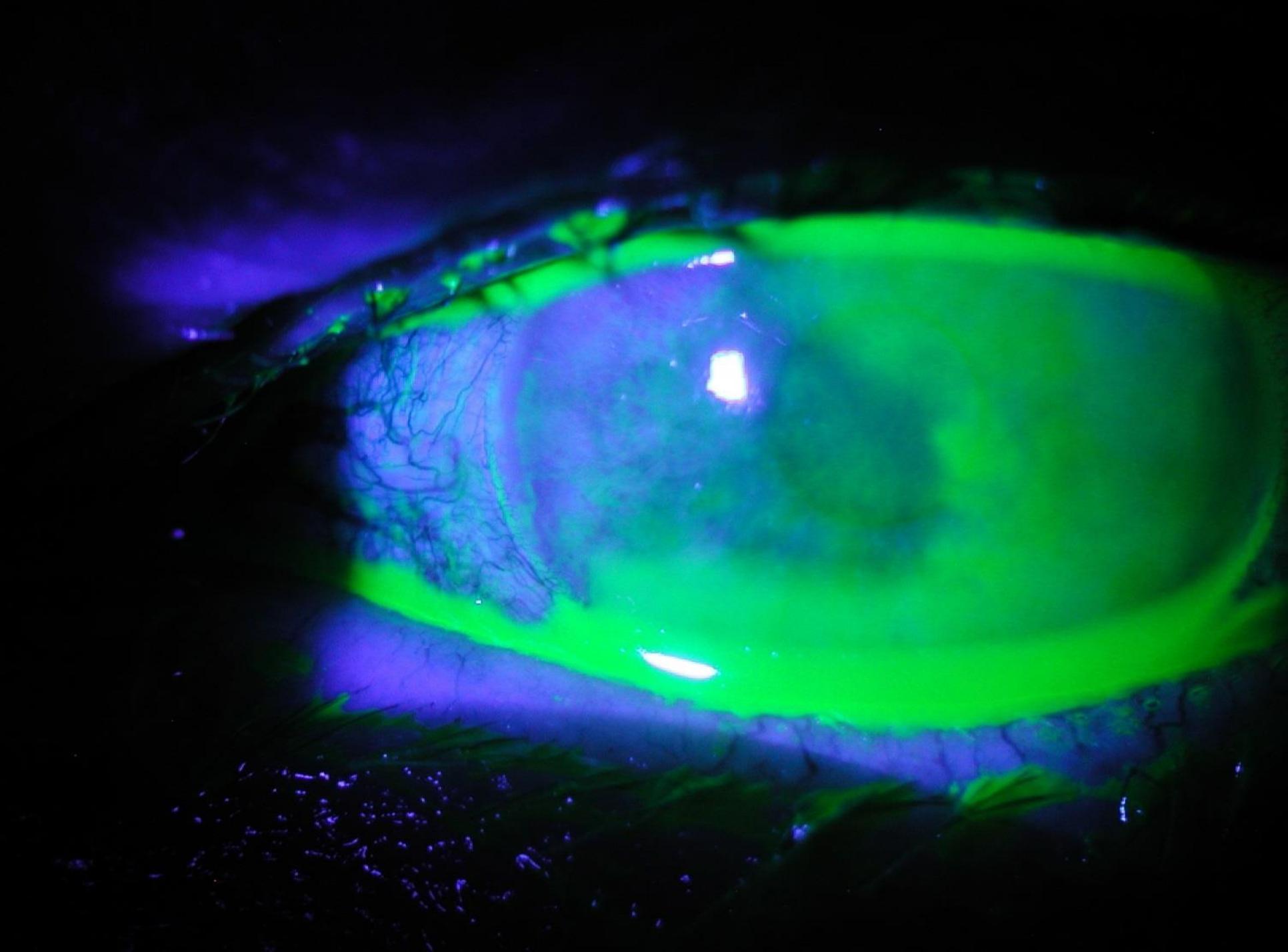
Acute epithelial reaction causing a self limiting but very painful corneal ulceration.

VA 6/30

Given 1% cyclopentolate in rooms for photophobia

Rx Tobrex ointment tid and Acular qid

Rev next day



66 year old male - day 2

VA 6/60 (ointment?)

PH VA 6/24+

SL still very red eye, epithelium healing
and pain reduced somewhat.

Plan Maintain Acular qid for pain
Reduce Tobrex ointment am and
before bed

66 year old male - day 4

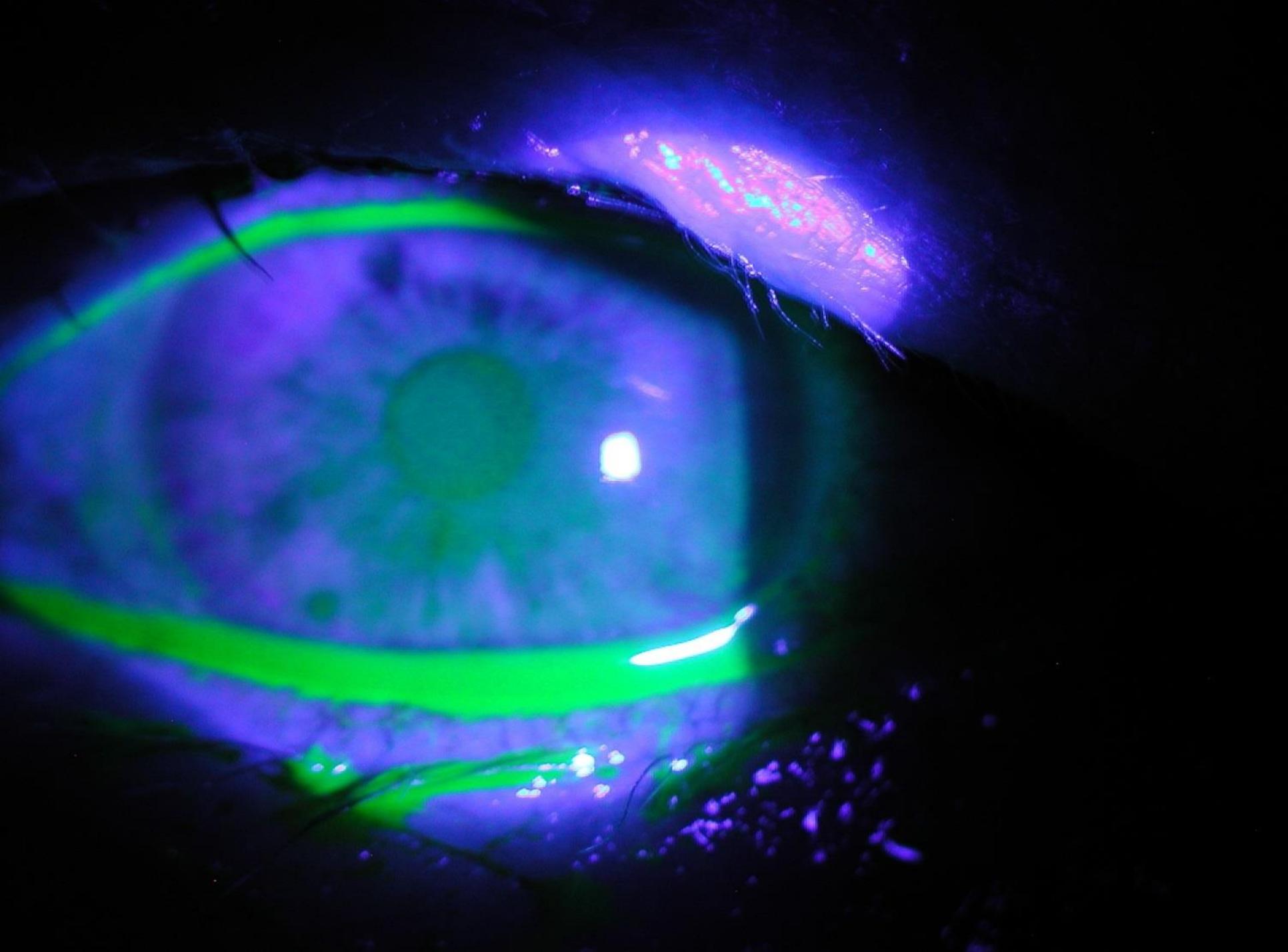
PC "Feeling 100%" Very little discomfort.

PH VA 6/12

Unaided 6/15

SL NaFl fine diffuse SPK, mild injection

Plan Cease antibiotic, keep Acular bid (probably not needed)



Christmas Eye???

- Thomas D. Walker, A Seasonal Corneal Ulcer, *Australian Journal of Ophthalmology*, Vol 2 Issue 2, pages 64–67, June 1974
- Geoffrey Howsam, Christmas or harvester's eye, *Australian and New Zealand Journal of Ophthalmology*, 1994, 22, 2
- Take home point – make the patient comfortable and avoid a secondary infection.

52 year old male

Woke up Sat am bit gritty and got worse, feels like a foreign body.

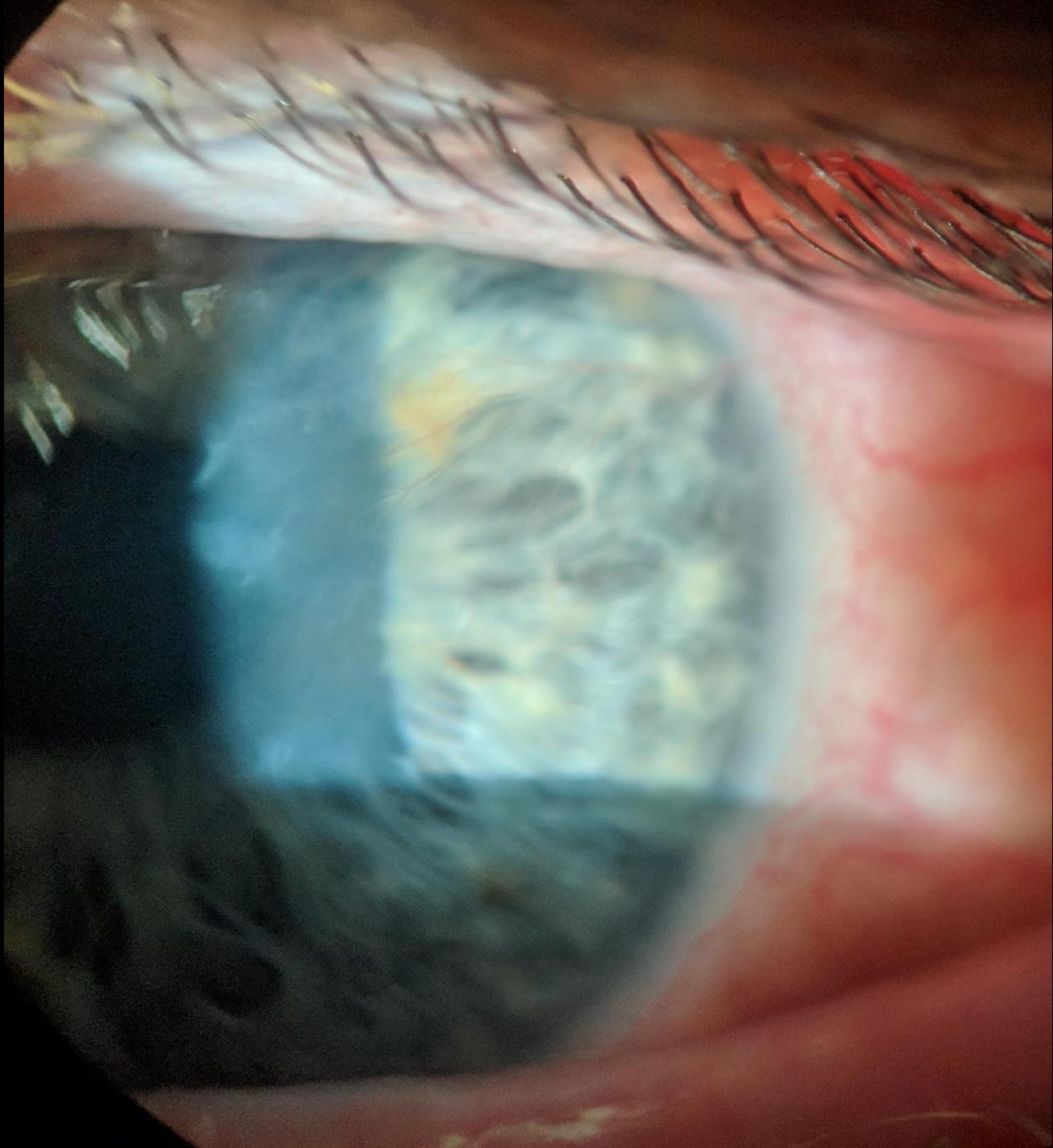
Does not think anything went in the eye Friday, felt ok Friday night.

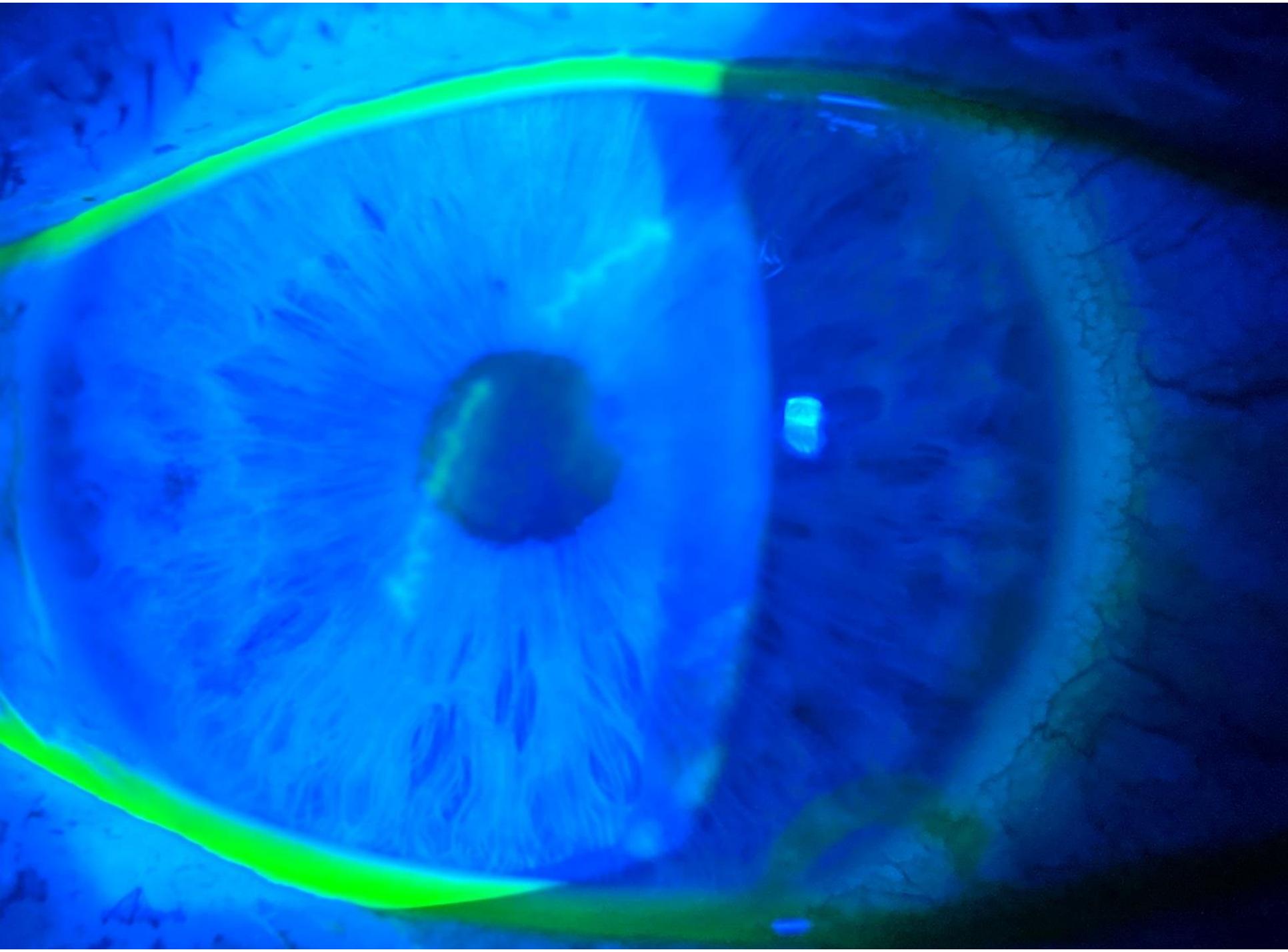
Goes to SS for glasses and exams

Med none

Unaided 6/12 6/24 6/12

IOP 13/13



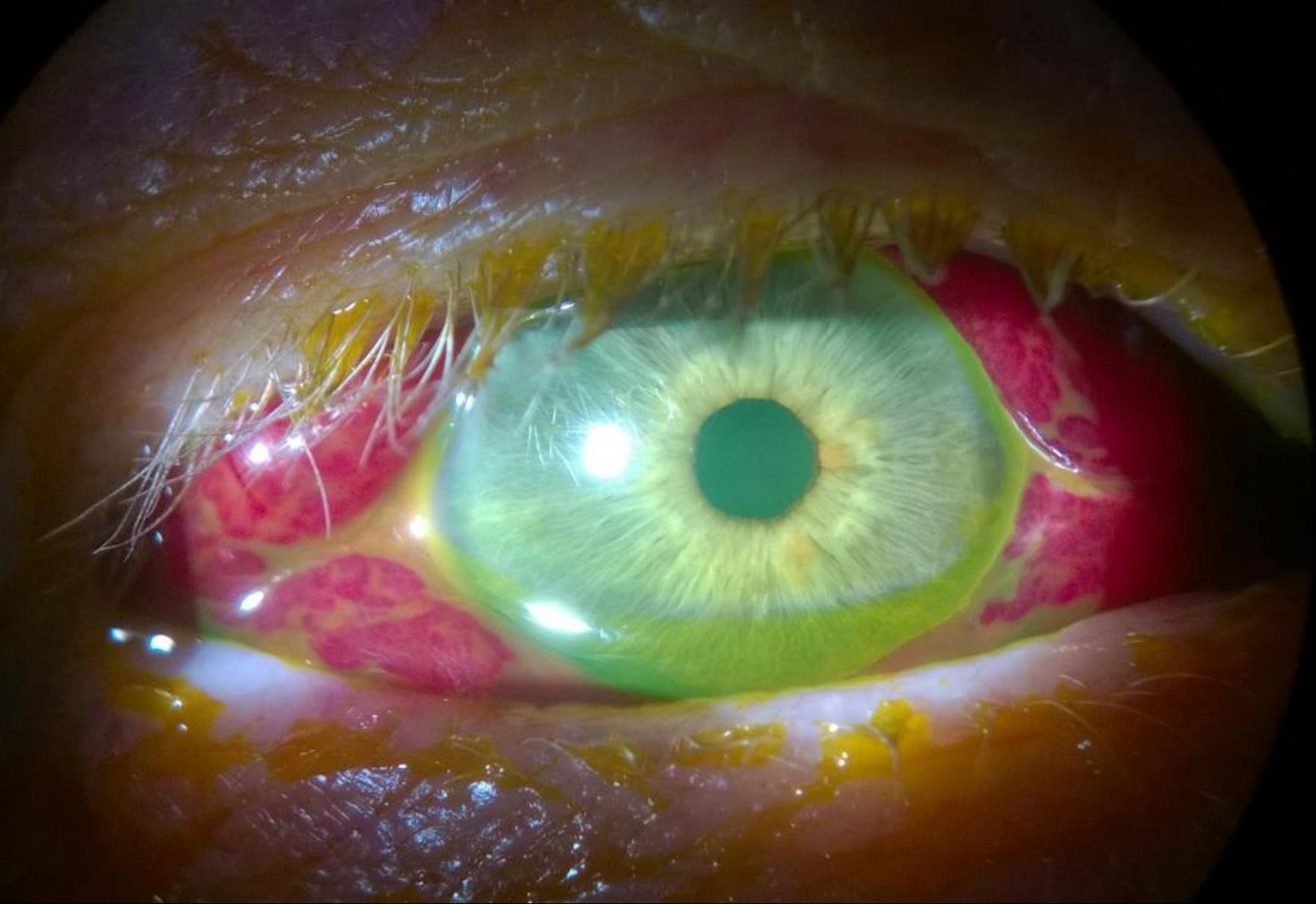


52 year old male

- left corneal haze and fine corneal blood vessels from temp limbus to central cornea. NaFl stain on leading edge
- Cold sores on the lip years ago
- Dx?
- Looks like long standing HSV.
- Refer to Ophthalmologist tomorrow
- Report from Dr H, treated with Valtrex tablets tds (valaciclovir)

When does a subconjunctival haemorrhage need to be treated?

- 80 year old lady presented with
 - A very large dark subconjunctival haemorrhage
 - A headache on the previous day (6 Panadol osteo)
 - No history of coughing or sneezing or vomiting
 - Does take blood thinners and has a history of stroke
- Treatment?
 - Lubricate 4 times daily with preservative free drop
 - Reassure that vision is ok and it will take weeks to clear and wrote to her GP

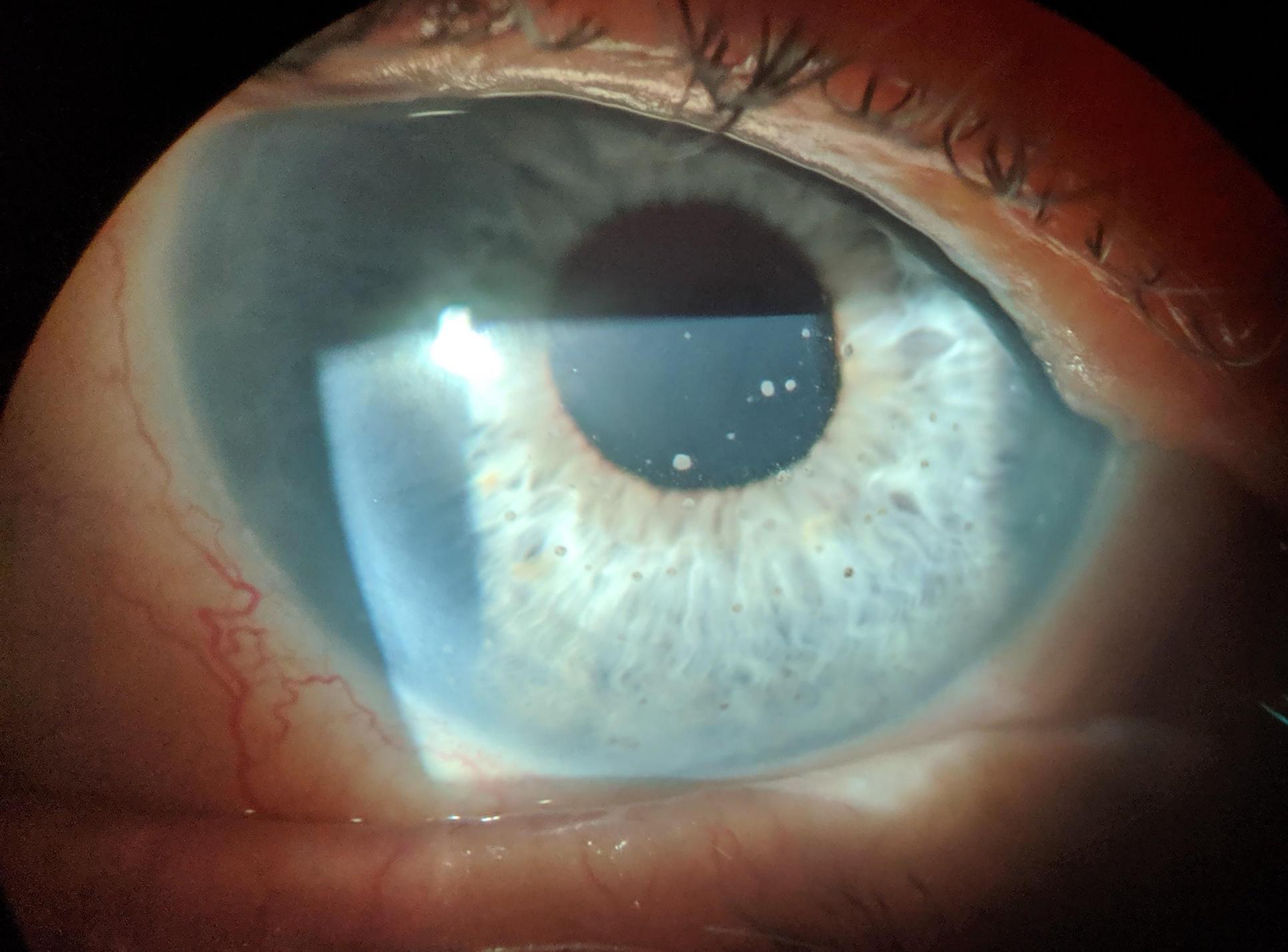


When is a subconjunctival haemorrhage serious?

- Trauma (young) and blood condition (old)
- SCH 12-24 hours after orbital trauma
- SCH nasal side and 24 hours after head injury is strongly associated with fractures of the base of the skull
- In older patients blood pressure and time it takes blood to clot (INR) should be checked

Odd way to treat uveitis?

- 68 year old female in for 6 month field test
- Simbrinza bid and Xalacom qpm right only after left Xen procedure 2019.
- IOP 15 right and 10 left
- SL VH 1+ IOLs clear OU, some iris transillumination defects, right round KP all over bottom half
- Right eye has generalized redness
- When questioned does admit to some light sensitivity

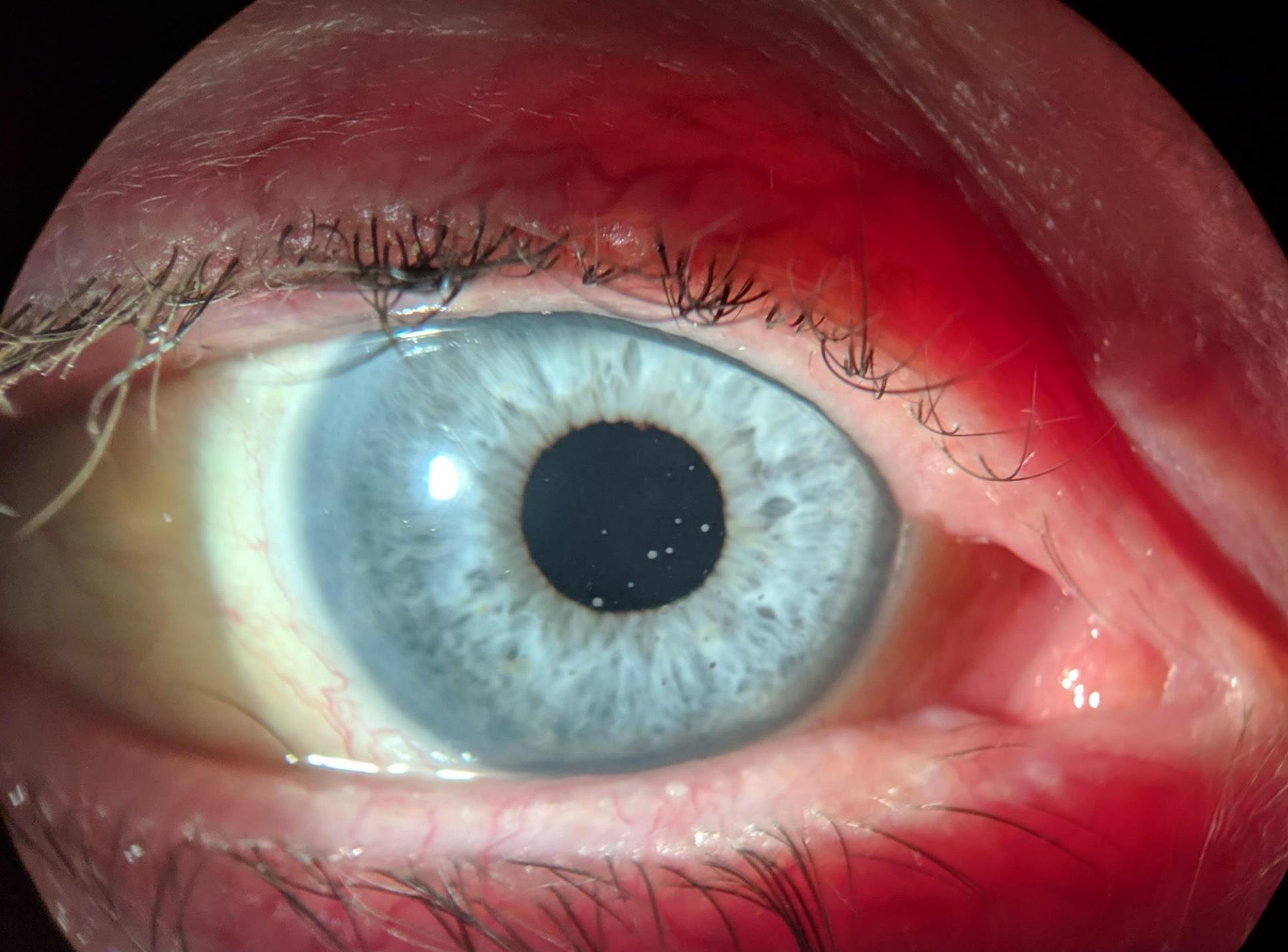


Brimonidine uveitis?

- Email image of right eye to surgeon regarding KP management.
- Ophthal rang back, cease Simbrinza and rev one week.
- “Anterior Uveitis as a Side Effect of Topical Brimonidine”
- Am J Ophthalmol 2000;130:287–291.

Brimonidine uveitis?

- Been off Simbrinza for one week, Xalacom right only at night.
- SL iris mobile some iris transillumination defects
- right round KP all over bottom half
- IOP 16 right 9 left
- The right is now white and she has no photophobia
- No steroids were prescribed and sees surgeon later that week



Thank You

