Ophthalmic Urgencies & Emergencies for the Family Doctor

Matthew Quinn MD PhD, PGY4

23-10-2020

Objectives

- Recognize patient presentations to family practice that necessitate urgent referral to ophthalmology
- Identify key symptoms that help to determine level of urgency
- Compose effective handover document/referral for urgent eye issues

Outline

- Key clinical presentations
  - Etiologies
  - Benign vs worrisome features
  - Your role as the family doctor
- Red flags for acute vision changes
- How to write a great referral to ophthalmology

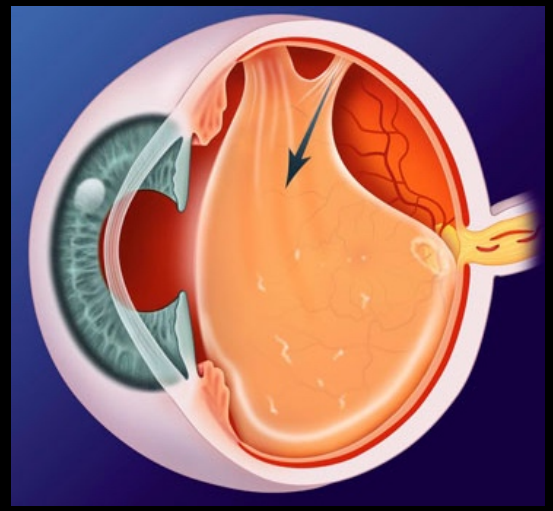
Case #1: There's a cobweb in my vision!

- 65-year-old female presents with a complaint of 2 days of seeing a "cobweb" and flashing lights in her right eye
- Focused history: No ocular history/surgeries, no recent trauma
- Focused exam: 20/25 in each eye, PERL, visual fields are full

- Provisional diagnosis?
- What is your role?

Flashes and Floaters

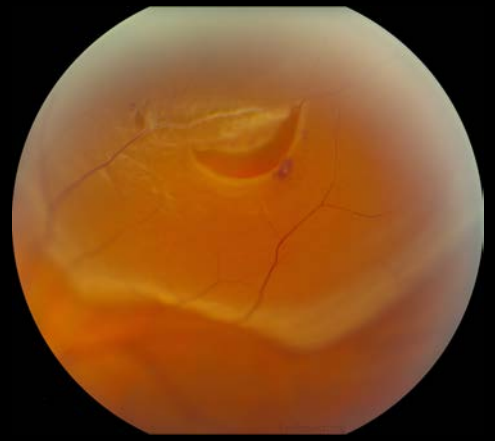
Benign



posterior vitreous detachment

acephalgic migraine

Dangerous

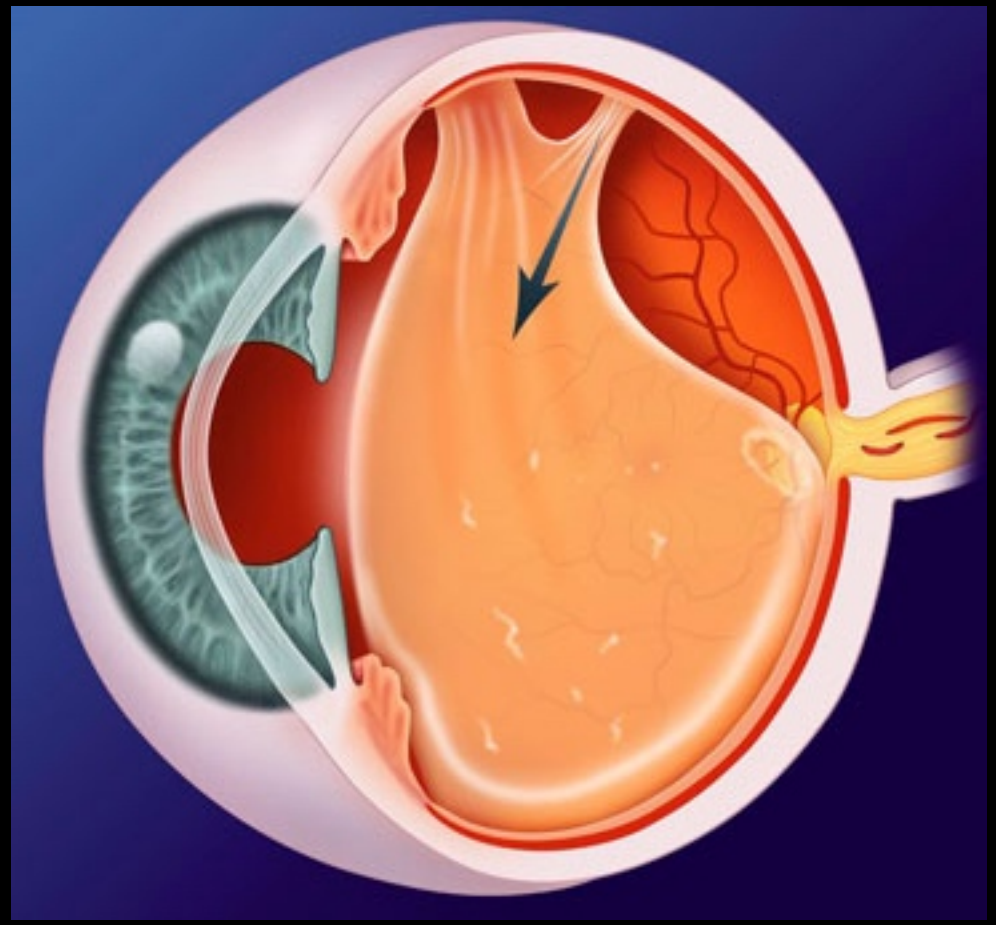


retinal tear

retinal detachment

Flashes and Floaters - Benign Posterior Vitreous Detachment (PVD)

- What?
  - Separation of vitreous from retina
  - A normal, age-related process!
- Who?
  - 50’s and up
- Symptoms?
  - Monocular floaters (few), flashes
- Red flags?
  - Innumerable floaters, decreased VA, visual field loss, trauma, ocular surgery
- Your management?
  - Refer to ophthalmology
  - We will see within 72 hrs

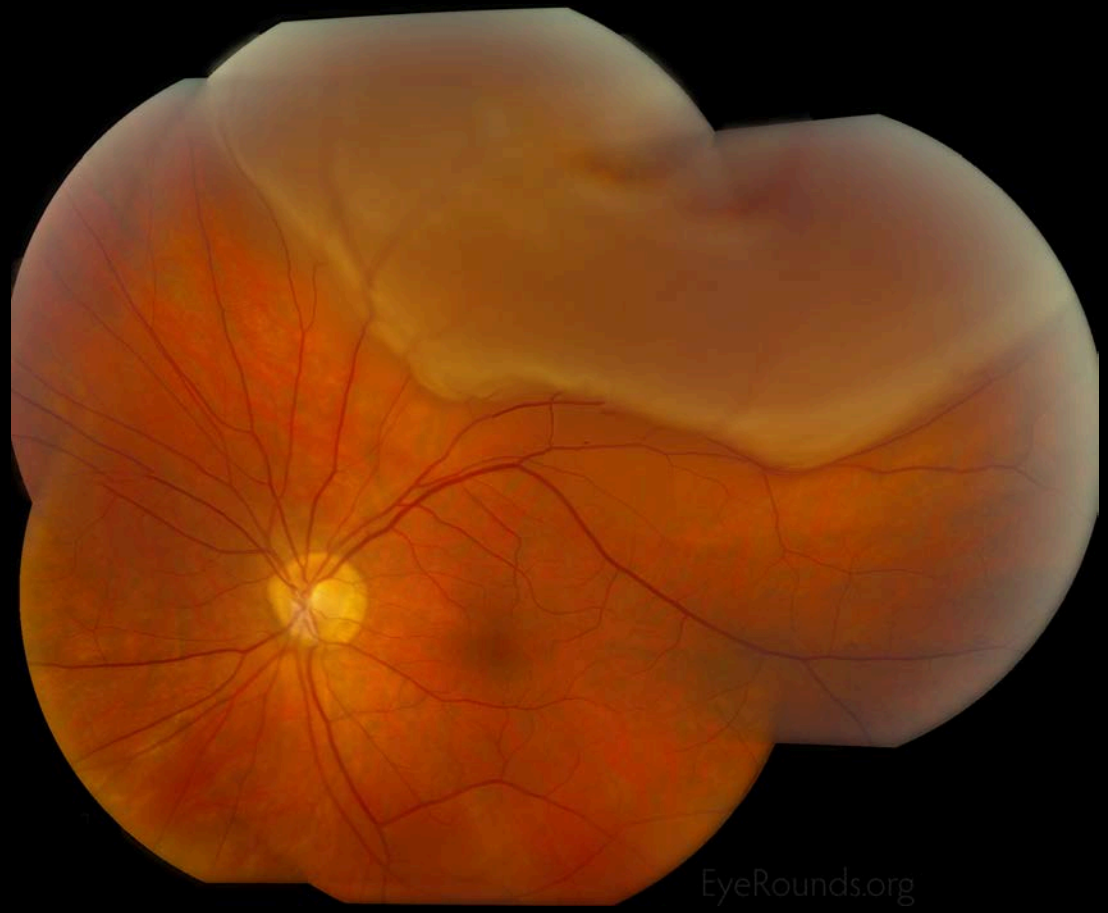


Flashes and Floaters - Benign Acephalgic migraine

- What?
  - Migrainous aura without headache
- Who?
  - Any age; common in young adults
- Symptoms?
  - Scintillating scotoma in BOTH eyes
  - Lasting 5-30 minutes
- Red flags?
  - Monocular, permanent visual field deficit, 1st presentation in elderly
- Your management?
  - Refer to ophthalmology (vs neurology)
  - We will see likely within 1-2 weeks

Flashes and Floaters - DANGEROUS Retinal detachment

- What?
  - Separation of retina from underlying tissues
- Who?
  - Any age, typically middle age and up
- Symptoms?
  - Decreased VA, flashes, innumerable floaters, **curtain-like visual field loss**
  - Onset over hours to days
- Red flags?
  - Peripheral visual field loss,
  - ”millions of floaters”
- Your management?
  - Refer to ophthalmology emergently
  - We will see same day and attempt repair



Flashes and Floaters

	Benign (fax)	**Worrisome** (call)
Antecedent events		Trauma, recent ocular surgery
Associated symptoms	Binocular symptoms with clear migraine history	Pain, photophobia (uveitis)
Floaters	1 large “cobweb”	Innumerable, “millions of black dots”
Visual acuity	Unaffected	Decreased
Visual fields	Full	History: “curtain” Exam: peripheral field loss

All flashes and floaters should be referred

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- Focused exam: 20/25 in each eye, PERL, visual fields are full

- Provisional diagnosis?
  - Posterior vitreous detachment
- What is your role?
  - Refer to ophtho: fax is ok, call if concern for RD

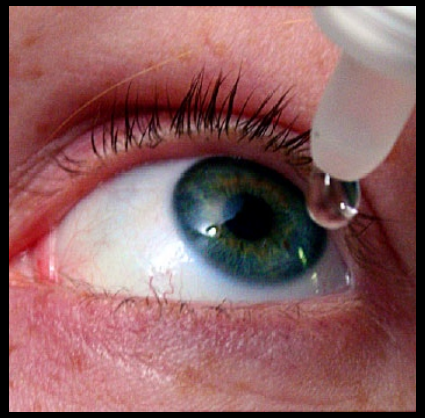
Case #2: Coming and going

- An 86-year-old male presents with episodes of “blurry vision”
- Focused history: Two episodes, lasting 1-2 minutes, of darkening of vision in the left eye “like a curtain came down and then up again”
- Focused exam: VA 20/30 in each eye, PERL, full VF

- Provisional diagnosis?
- What is your role?

Transient Vision Loss

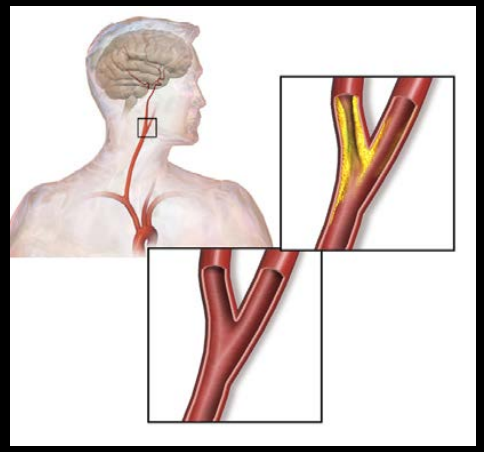
Benign



dry eye

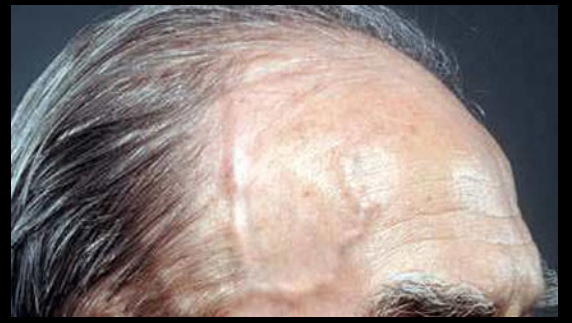
acephalgic migraine

Dangerous

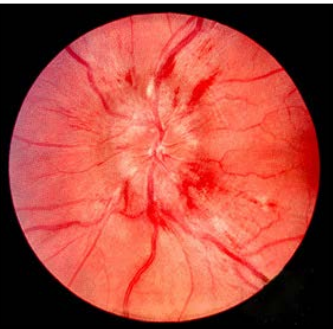


transient ischemic attack
(carotid disease, etc.)

giant cell arteritis



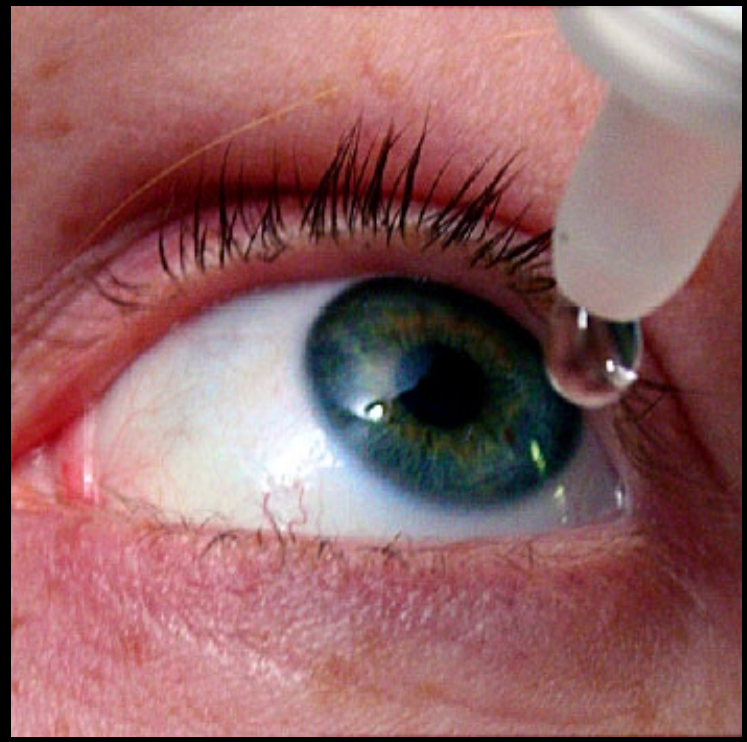
amaurosis fugax



elevated intracranial pressure

Transient vision loss - Benign
Dry eye

- What?
  - Abnormal tear film, irregular ocular surface
- Who?
  - Anyone, age>50 typical
- Symptoms?
  - Blurred vision that improves with blinking
  - Foreign body sensation, tearing
  - Frequently bilateral
- Red flags?
  - No improvement with blink, pain
- Your management?
  - Artificial tears QID, hot compresses
  - Routine referral to ophthalmology

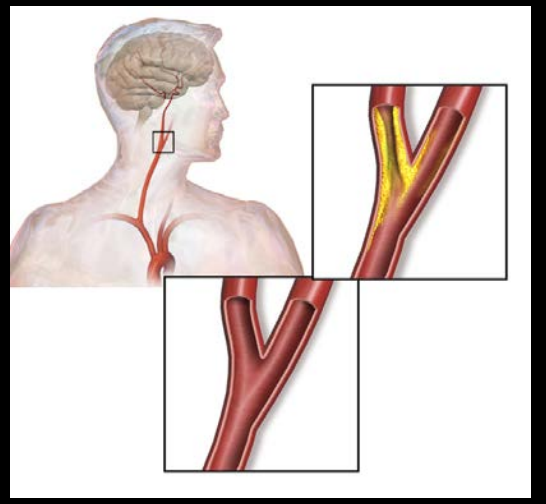


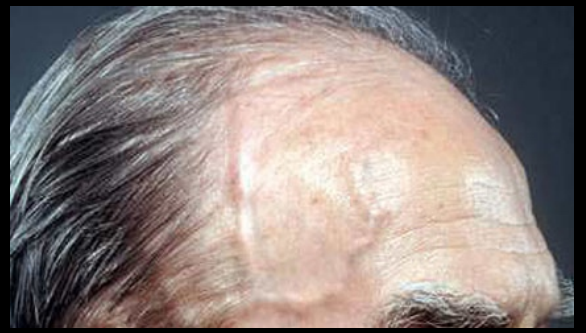
Transient vision loss - Benign Acephalgic migraine

- What?
  - Migrainous aura without headache
- Who?
  - Any age; common in young adults
- Symptoms?
  - Scintillating scotoma in BOTH eyes
  - **Complete resolution after 5-30 minutes**
- Red flags?
  - Monocular, permanent visual field deficit, 1st presentation in elderly
- Your management?
  - Refer to ophthalmology (vs neurology)
  - We will see likely within 1-2 weeks

Flashes and Floaters - DANGEROUS
Amaurosis fugax

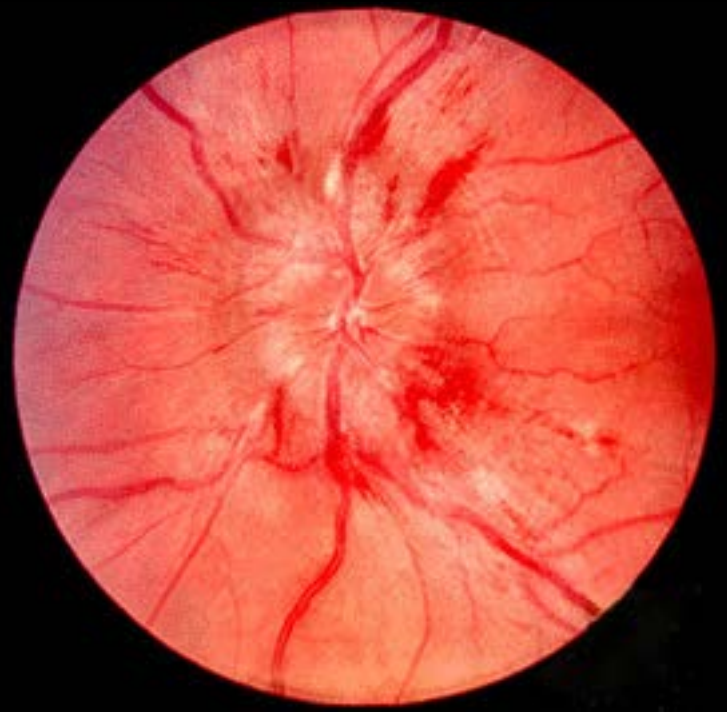
- What?
  - Transient retinal ischemia (ocular TIA)
  - High risk of subsequent stroke
- Who?
  - Same risk factors as stroke
- Symptoms?
  - Transient curtain coming down/up
  - May last several minutes
- Red flags?
  - Symptoms of GCA
  - Associated neuro symptoms
- Your management?
  - **Referral to ophtho/ED**
  - ?Bloodwork, steroid for GCA





Transient vision loss - DANGEROUS Elevated intracranial pressure

- Who?
  - Anyone (broad ddx)
- Symptoms?
  - Often binocular dimming of vision lasting seconds
  - +N/V, supine headache, etc.
- Red flags?
  - Neuro deficits, papilledema
- Your management?
  - Call ophtho to r/o other etiologies
  - Send to emerg



Transient Vision Loss

	Benign (fax a referral)	**Worrisome** (consider calling)
Demographics		Age 50+
Alleviating factors	Blinking, tear drops	
Duration	10-30 minutes	Seconds to minutes
Associated symptoms	Foreign body sensation Tearing	**GCA symptoms** Neuro symptoms Elevated ICP symptoms
Exam		Neurologic deficits Papilledema

What symptoms are suggestive of Giant Cell Arteritis?

Giant Cell Arteritis

- **New headache**
- **Jaw/tongue claudication**
- **Transient vision loss**

Think about GCA in a patient > 50

- Others: Scalp tenderness, constitutional symptoms, **Diplopia**, oral ulcers, PMR symptoms

- How do you ask about jaw claudication?
  - Claudication: Pain worsens with subsequent chews, alleviated when chewing stops
  - TMJ pain: Present on first bite, +clicking/popping

What bloodwork will you order if you are suspicious for GCA?

- ESR
  - Upper limit of normal:
  - Males: age/2
  - Females: (age+10)/2
- CRP
  - Frank elevation
- CBC
  - Relative elevation in platelets

- Prednisone 1 mg/kg
  - Caution in diabetes, elderly

Coming and going

- An 86-year-old male presents with episodes of “blurry vision”
- Focused history: Two episodes, lasting 1-2 minutes, of darkening of vision in the left eye “like a curtain came down and then up again”
- Focused exam: VA 20/30 in each eye, PERL, full VF

- Provisional diagnosis?
  - Amaurosis fugax
- What is your role?
  - Ask about GCA symptoms, +/- ESR/CRP/CBC, +/- prednisone
  - Urgent referral to ophthalmology

Case #3: Who turned off the lights?

- 73-year-old male presents to your afterhours clinic complaining of a sudden decrease in vision

- Focused history: Painless, unilateral vision loss on the right, acute onset 2-3 hours ago. No flashes/floaters, no trauma, no neurologic symptoms.
- Focused exam: VA CF (right), 20/20 (left); right pupil sluggish, +RAPD; VF full (but very slow to count fingers on the right)

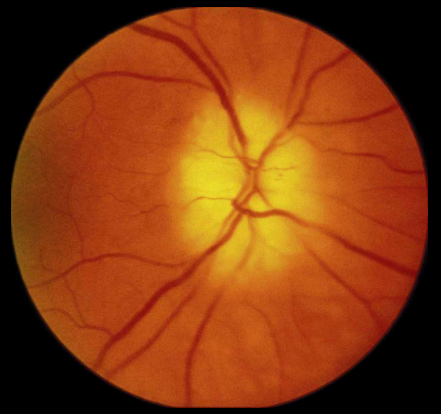
- What is your provisional diagnosis?
- What is your role?

Acute painless vision loss

Benign

Acute awareness of chronic vision loss
Non-organic vision loss
…

Dangerous



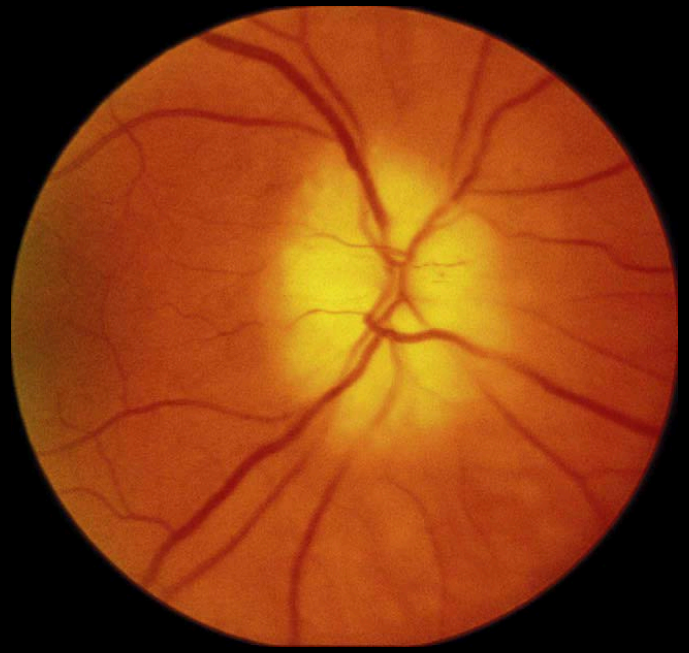
ischemic optic neuropathy

retinal detachment

central retinal artery occlusion

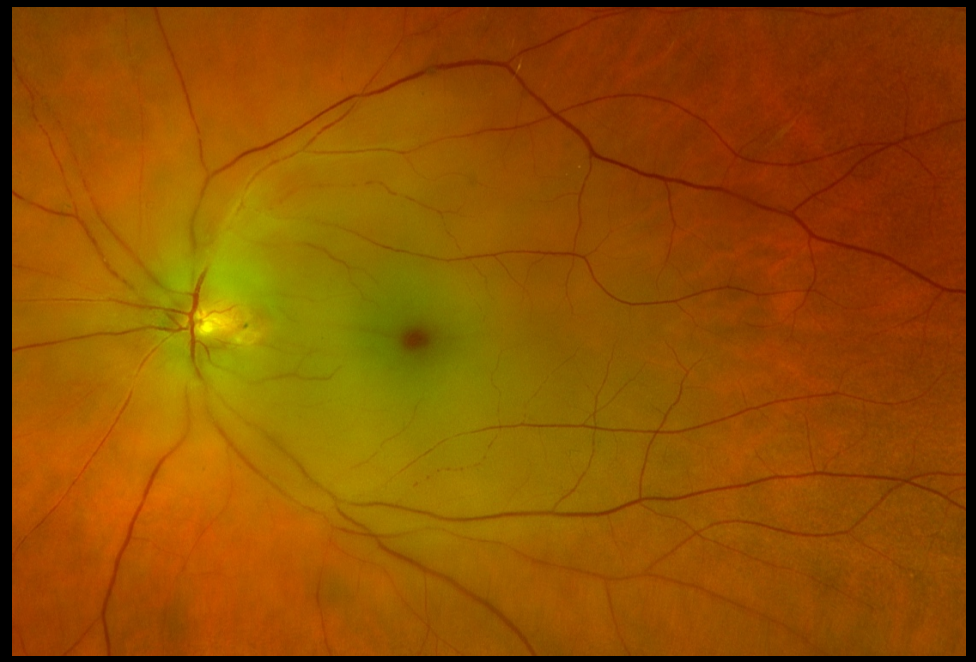
Acute painless vision loss - DANGEROUS
Ischemic optic neuropathy

- What?
  - Optic nerve stroke
  - Can be caused by GCA
- Who?
  - >50
- Symptoms?
  - Onset over minutes to hours
  - Loss of colour vision
- Red flags?
  - RAPD, VF defect, abnormal nerve
- Your management?
  - Call ophtho
  - Depending on VA, GCA risk, we will see same day (+/- IV steroid)



Acute painless vision loss - DANGEROUS
Central retinal artery occlusion

- What?
  - Retinal stroke
  - Can be caused by GCA
- Who?
  - Same risk factors as cerebral stroke
- Symptoms?
  - Onset over seconds to minutes
  - +/- recent amaurosis
- Red flags?
  - +RAPD, abnormal VF, “cherry red spot”
  - GCA symptoms
- Your management?
  - Call ophtho/ED **immediately**
  - May be candidate for tPA



Acute painless vision loss - DANGEROUS Retinal detachment

- What?
  - Separation of retina from underlying tissues
- Who?
  - Any age, typically middle age and up
- Symptoms?
  - Decreased VA, flashes, innumerable floaters, **curtain-like visual field loss**
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- Red flags?
  - Peripheral visual field loss,
  - ”millions of floaters”
- Your management?
  - Refer to ophthalmology emergently
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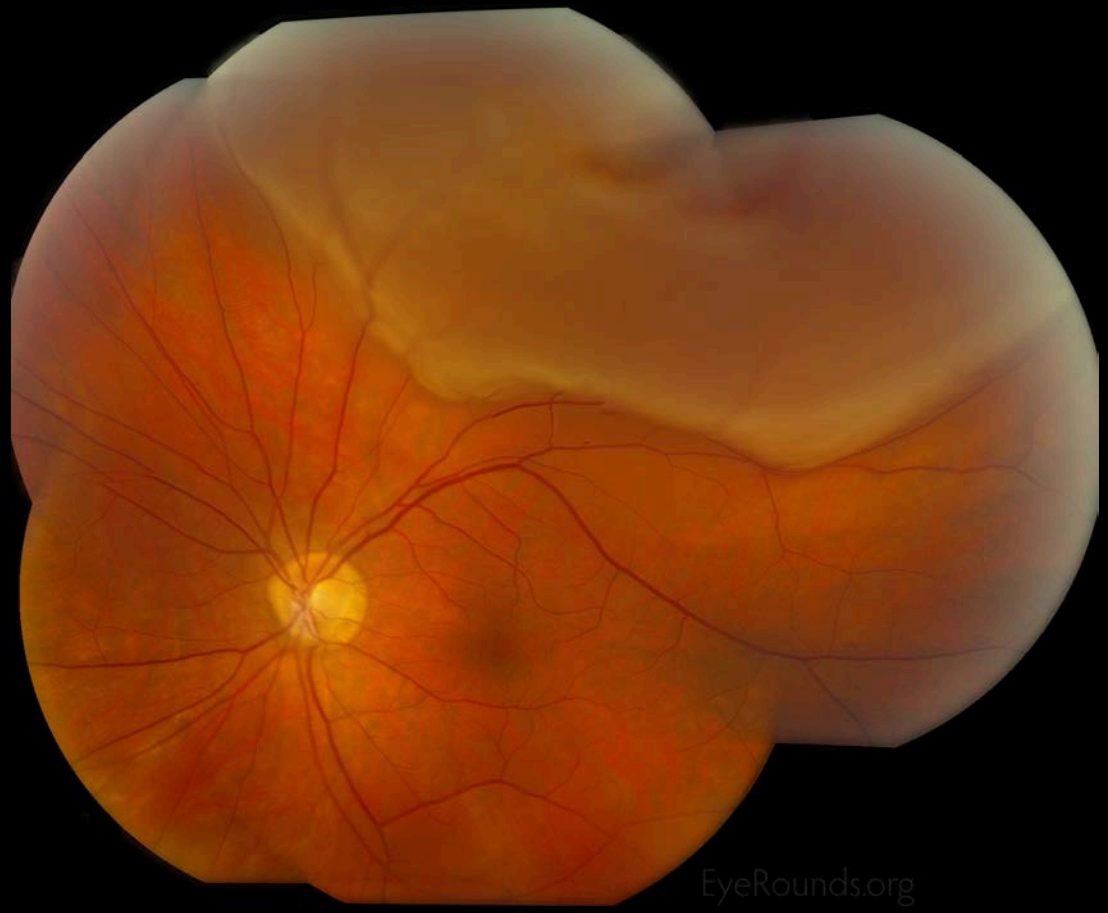


Acute Painless Vision Loss

	Benign (fax)	**Worrisome** (call)
Preceding symptoms		GCA symptoms Amaurosis fugax Other neuro symptoms Flashes and floaters
Alleviating factors	Complete improvement with blinking, tear drops	
Exam		Profound loss of vision (<20/200) +RAPD VF loss

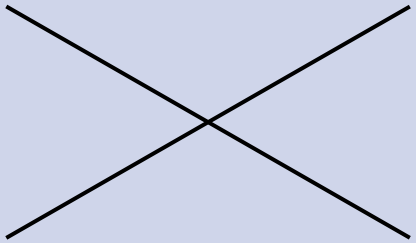
Who turned off the lights?

- 73-year-old male presents to your afterhours clinic complaining of a sudden decrease in vision

- Focused history: Painless, unilateral vision loss on the right, acute onset 2-3 hours hours ago. No flashes/floaters, no trauma, no neurologic symptoms.
- Focused exam: VA CF (right), 20/20 (left); right pupil sluggish, +RAPD; VF full (but very slow to count fingers on the right)

- What is your provisional diagnosis?
  - Central retinal artery occlusion vs ischemic optic neuropathy
- What is your role?
  - Call ophthalmology immediately!

When to call ophthalmology?

	Routine referral	Urgent referral	Emergent referral/Call
Flashes and floaters	Few floaters Normal VA Normal fields	Decreased VA Innumerable floaters	Visual field loss
Transient vision loss	Mild 'blurring' that is relieved with blinking/tear drops	Other neuro symptoms Symptoms of elevated ICP	+review of systems for GCA
Acute painless vision loss		Only moderate degree of vision loss (>20/100) No GCA symptoms No RAPD Normal VF Grossly normal eye	Profound vision loss (<20/200) especially if concerned for GCA RAPD curtain defect/VF loss

So you need to refer to ophthalmology…

How to provide the best handover?

How (not) to write a good referral

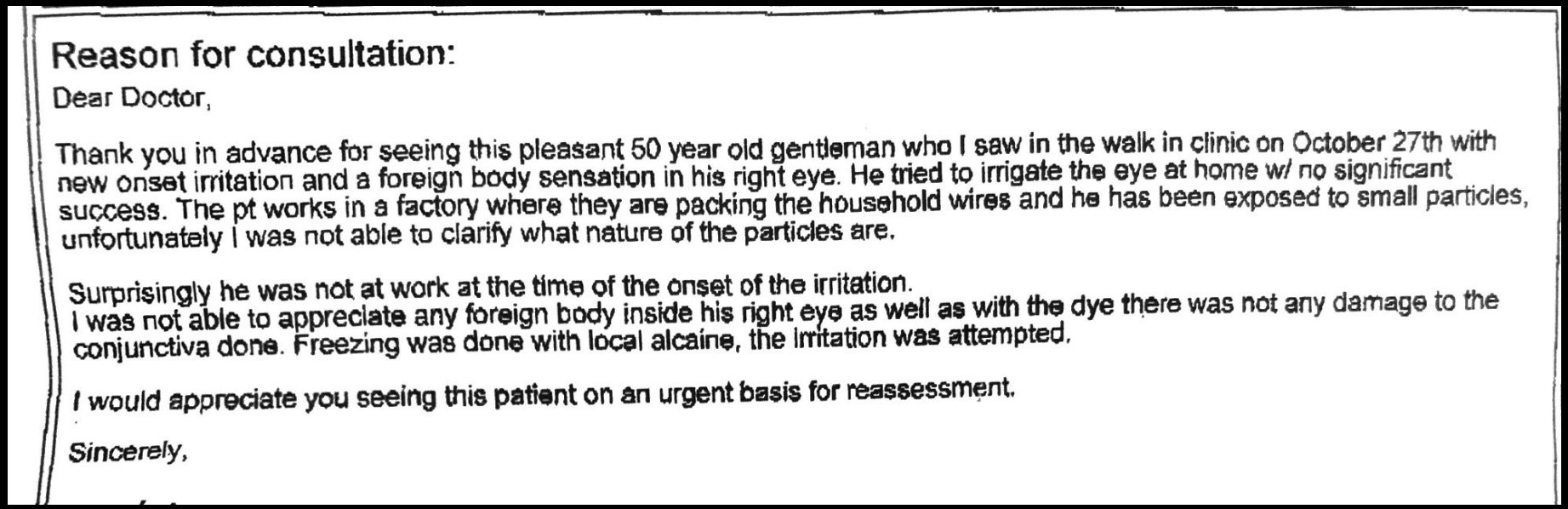
Date: 2020-10-15

Reason for Referral:

38-year-old male, sustained left eye injury JAN 2020 with metal foreign body. Since summer 2020 progressive uncomfortable in left eye. Visible swelling 8 weeks ago with 5-day of blurry vision. See attached photo.

What is the issue?
Any exam?

How to write a good referral



Reason for consultation:

Dear Doctor,

Thank you in advance for seeing this pleasant 50 year old gentleman who I saw in the walk in clinic on October 27th with new onset irritation and a foreign body sensation in his right eye. He tried to irrigate the eye at home w/ no significant success. The pt works in a factory where they are packing the household wires and he has been exposed to small particles, unfortunately I was not able to clarify what nature of the particles are.

Surprisingly he was not at work at the time of the onset of the irritation.
I was not able to appreciate any foreign body inside his right eye as well as with the dye there was not any damage to the conjunctiva done. Freezing was done with local alcaine, the irritation was attempted.

I would appreciate you seeing this patient on an urgent basis for reassessment.

Sincerely,

Demographics: 50 year old male
Issue: foreign body sensation
Pertinent history: timeline, management to date

Please always include **Visual Acuity**

How to write a *great* referral

[redacted] is a lovely, 59 year old female, with a past medical history significant for breast cancer (remote). She has no personal or family history of autoimmune or rheumatologic disease.

[redacted] presented to my clinic today with a 1 month history of right-sided red eye. This started quite suddenly, and has been stable in severity since onset. She denies associated eye pain or headache. She denies associated discharge. She denies photosensitivity or visual disturbance. She denies visual impairment. On examination, her visual acuity is 20/20 bilaterally. Pupils were equal and reactive to light. She has diffuse conjunctival injection with some visible nodularity on the nasal aspect of the right eye.

Unfortunately, my examination was quite limited in office; given the chronicity of symptoms, lack of pain, and lack of visual impairment, did not feel it warranted a visit to the Emergency Department. However, I am hoping you can see [redacted] in consultation to provide diagnostic clarification; I am suspicious of episcleritis, but would appreciate your assessment to confirm this diagnosis, and to provide treatment recommendations.

Many thanks for your time and expertise in the care of this patient.

Key points to include:

-Issue

-Demographics

-Pertinent history/timeline

-Visual acuity/exam

-Provisional diagnosis is a bonus

This particular referral is above and beyond!

We know you have other notes to write and don't expect this level of detail in every letter

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- Recognize patient presentations to family practice that necessitate urgent referral to ophthalmology
- Identify key symptoms that help to determine level of urgency
- Compose effective handover document/referral for urgent eye issues

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23-10-2020