OF NYC

Veterinary Eye Center

Under Pressure: Glaucoma & other Ophthalmic Emergencies

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Referrals

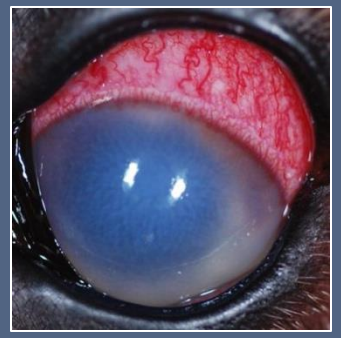
Available weekdays for same day/urgent appointments!

*Please call to schedule
(No walk ins)

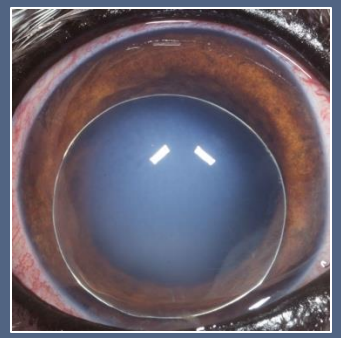
Exciting Announcements!

Coming Fall of 2025: Veterinary Eye Center of Connecticut!
Greenwich, CT

Coming Early 2026: Veterinary Eye Center of NYC – Brooklyn!!
Park Slope

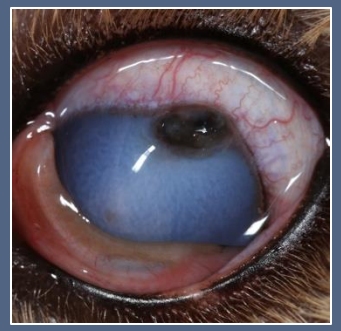


1. Glaucoma



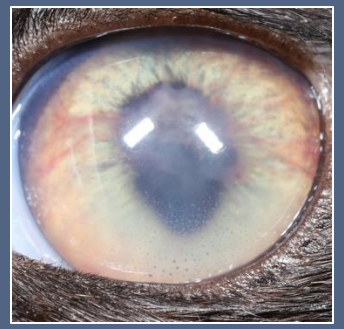
2. Lens luxation

3. Deep Corneal ulcers



4. Corneal ruptures

5. Proptosis



6. Uveitis

7. Hyphema

1. Recognize: What are the classic clinical signs?
2. Diagnose: What tests should I do?
3. (Subclassify: What type is it?)
4. Triage: How emergent is this?
5. Treat: What are the initial steps for management?

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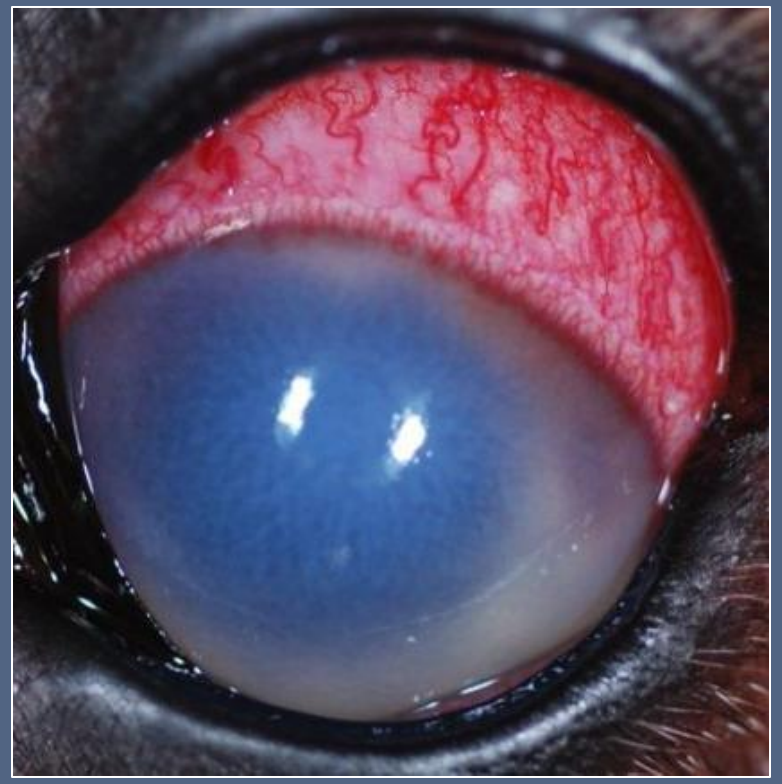
Glaucoma



What is it?

Decreased fluid drainage within the eye

→Fluid buildup within the eye

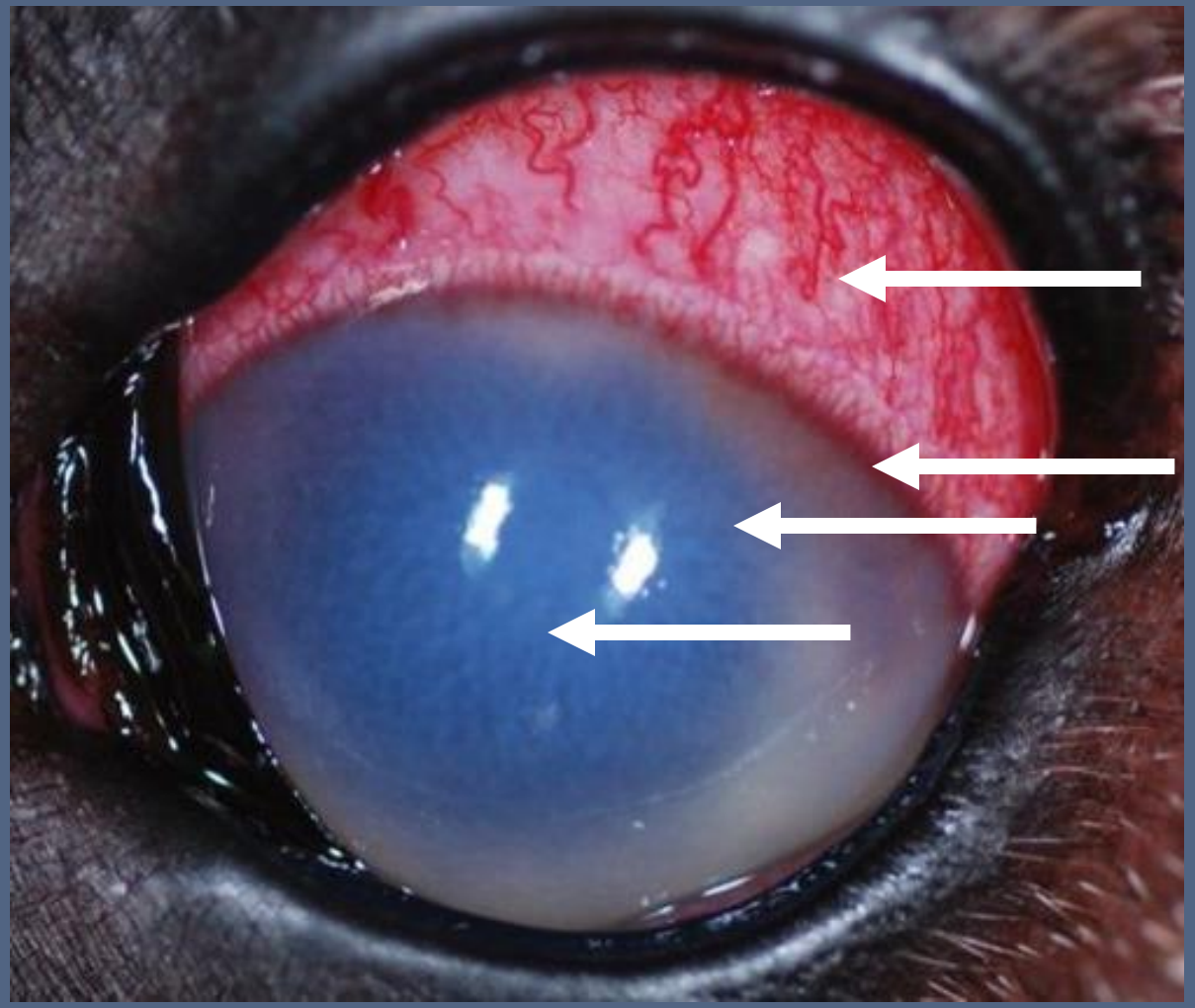
→ Increased intraocular pressure

→ Damage to the eye, especially the optic nerve

→ Pain and blindness

What are the clinical signs?

- Episcleral injection: A “red eye”
- Corneal edema
- Perilimbal vessels
- Mydriasis
- Pain: Often not overt eye pain!
  - Lethargy, decreased appetite



What test(s) should I do?

1. **Tonometry!**

IF: IOP > 25mmHg
+ Compatible signs

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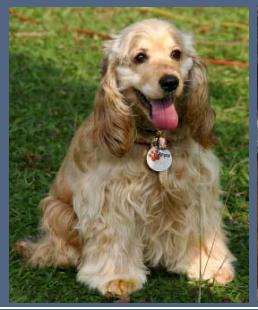
1. Is it primary or secondary?

2. Is it acute or chronic?

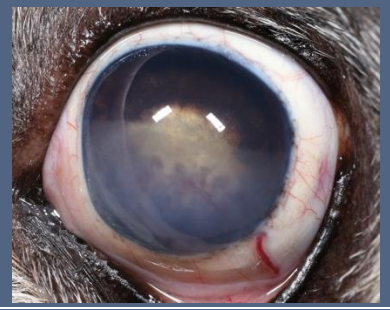
These factors help determine treatment plan and urgency

1. Is it primary or secondary?




Primary

Secondary

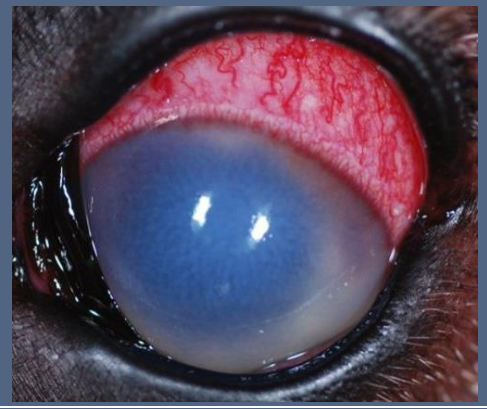



Inherited abnormality of the drainage angle

- Rule out secondary causes
- More likely if: Purebred, typical breeds, middle-aged, F >M

Secondary to another condition: Lens luxation, uveitis, tumor, etc.

- Does the inside of the eye look normal(ish) or no?
- Look for flare, hypopyon, hyphema, lens luxation, tumors



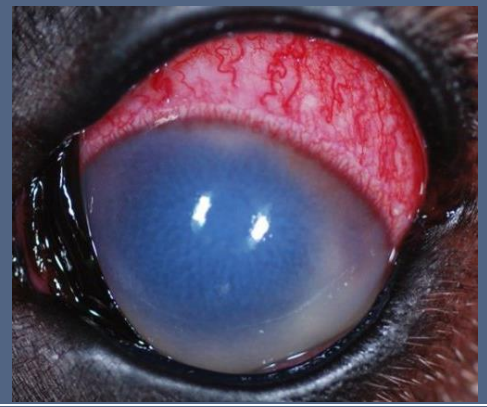
1. Is it acute or chronic?

Acute

- Classic signs
- Normal globe size
- Often more painful
- Often absent vision, but may have response on some tests
- If you can see the optic nerve: Often pale, but may still look normal

Chronic

- Buphthalmos!
- Blind (Menace? Dazzle? PLR?)
- Cupped optic nerve head
- Often have retinal degeneration



How emergent is this?

Emergent

Not ER

- Acute
- And/or vision left

→ *Start treating and call us!*

- Chronic and blind?

→ *Provide pain management and direct clients to make an appointment with us*

(we are always happy to consult on these too though!)

Not sure? Call or email us!
We are always happy to help!

Glaucoma | Lens Luxation | Deep ulcers | Ruptures | Proptosis | Uveitis | Hyphema

Recognize | Diagnose | Subclassify | Triage | Treat

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Signs of glaucoma + IOP > 25 mmHg

No additional findings → Acute Primary Glaucoma

1. Latanoprost & dorzolamide 3x
2. IOP in 30-60 min
3. Call us for urgent referral
4. (If won't refer and IOP still > 25, consider bolus 1-2 gm/kg mannitol IV over 20 min *if healthy*)
5. TGH: Latanoprost q12h, Dorzolamide q8h, +/- Timolol q12h, +/- pred q12h + pain meds

Buphthalmic/ Chronic Hx → Chronic Glaucoma

1. Latanoprost & dorzolamide 3x
2. IOP in 30-60 min
3. If IOP still >25, consider enucleation
4. Instruct client to make next available with us
5. TGH: Latanoprost q12h, Dorzolamide q8h, +/- Timolol q12h, +/- pred q12h, + pain meds

Significant aqueous flare, hypopyon, hyphema → Suspect Secondary Glaucoma

1. Systemic workup
2. Treat inflammation: Pred acetate +/- oral anti-inflammatory
3. Dorzolamide q8h, Timolol q12h + pain meds
4. Consider Latanoprost carefully
5. Visual: Call us for urgent referral
6. Blind: Instruct client to make appt with us/ enucleation

Lens in anterior chamber → Lens Luxation & Glaucoma

NO Latanoprost!

1. Dorzolamide +/- timolol 3x
2. IOP in 30-60 min
3. (If won't refer and IOP still > 25, consider bolus 1-2 gm/kg mannitol IV over 20 min *if healthy*)
4. Visual: Call us for urgent referral
5. Blind/buphthalmos: Instruct client to make appt with us/ enucleation

Because cats are weird…Feline nuances:

Primary glaucoma is much less common in cats

→ Most glaucoma cases are secondary
→ Check for uveitis!

Latanoprost is not effective, especially long-term, in cats!

→ Dorzolamide our go-to
→ Can also use timolol

Hypokalemia associated with topical administration of dorzolamide 2% ophthalmic solution in cats

Tara M. Czepiel | Neal T Wasserman *Veterinary Ophthalmology.* 2021;24:12–19.

Speaking of Dorzolamide…

Hypokalemia and hyperchloremia a possible side effect (mechanism unknown)

BW: 1 month, every 6 months

And timolol…
→ Monitor HR

And while we're at it, prednisolone…

Monitor for signs of corneal ulcer

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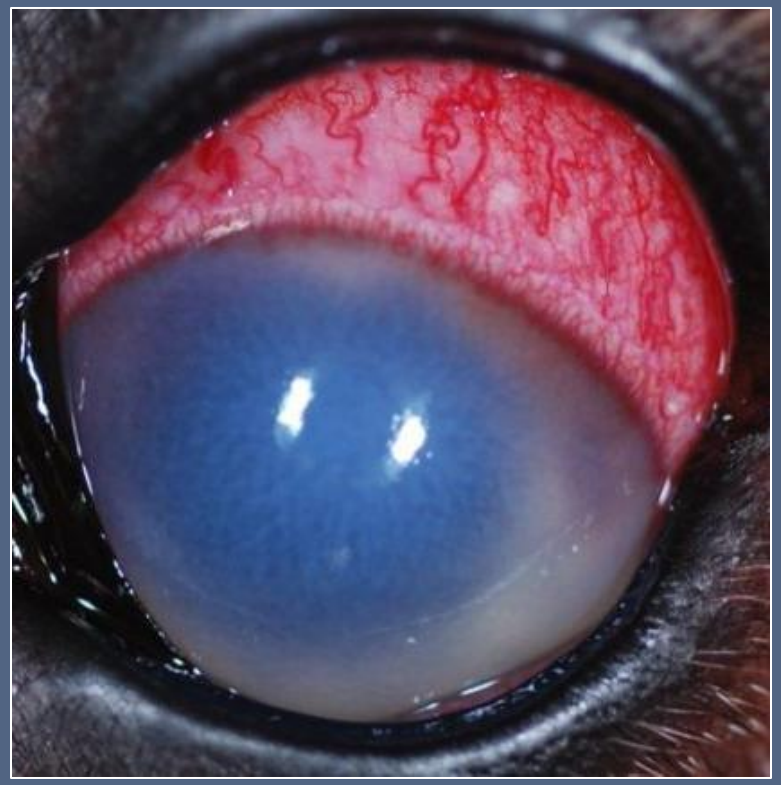
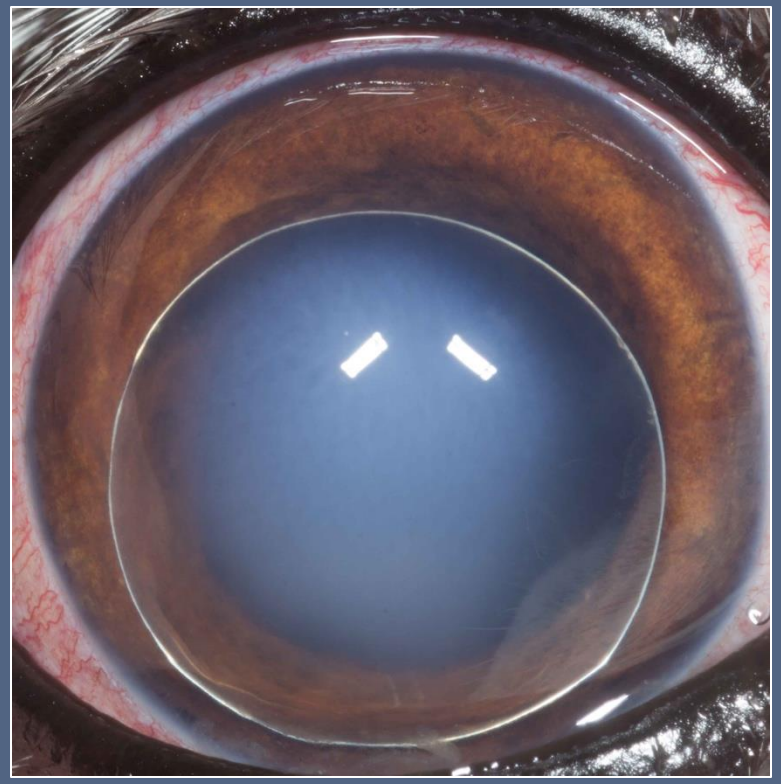
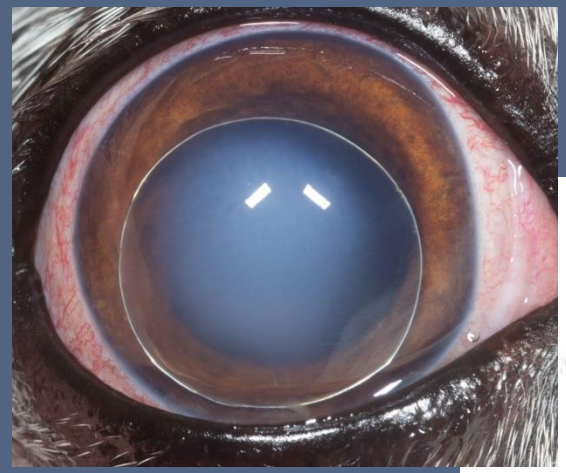
Questions about Glaucoma?



Lens luxation



What is it?

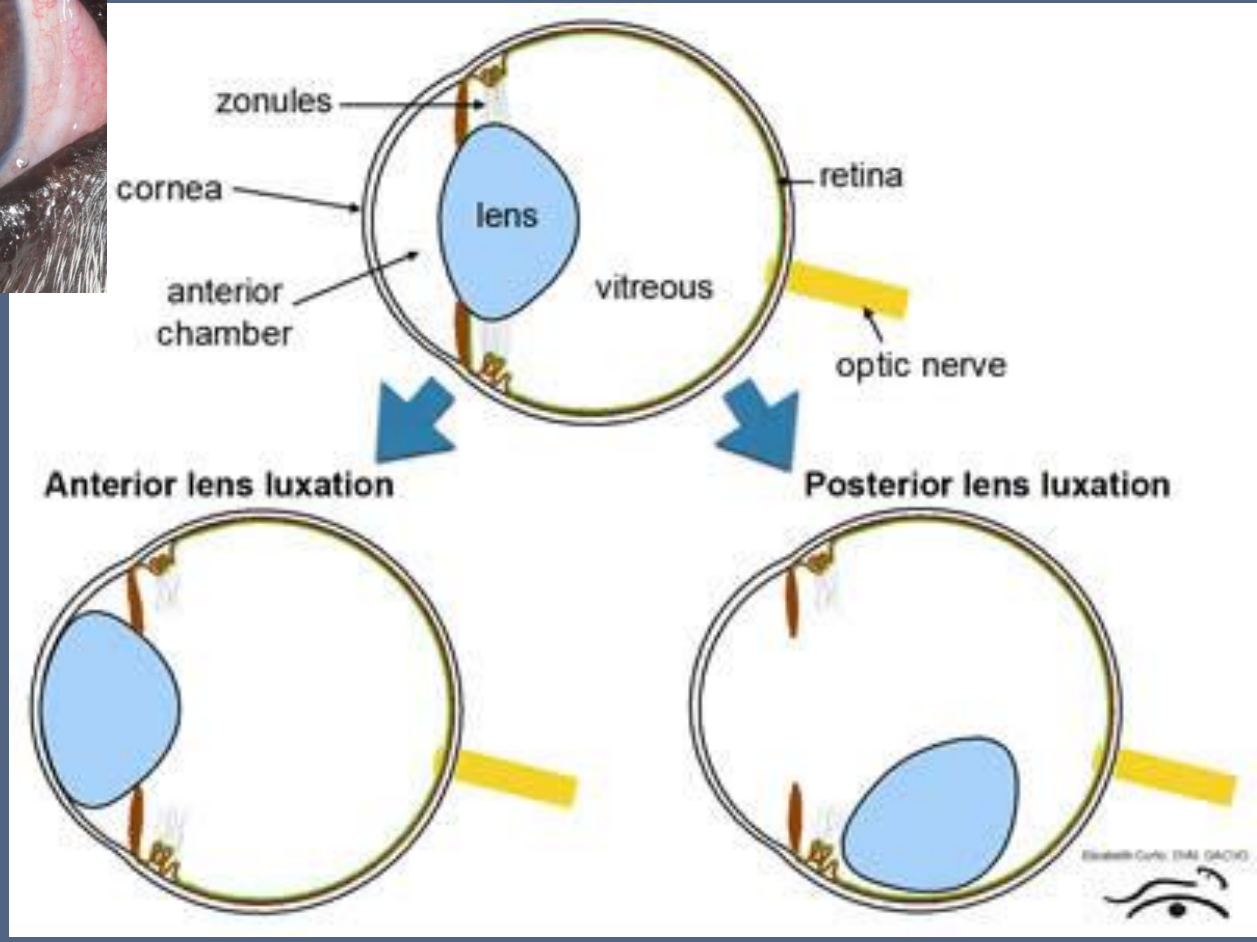


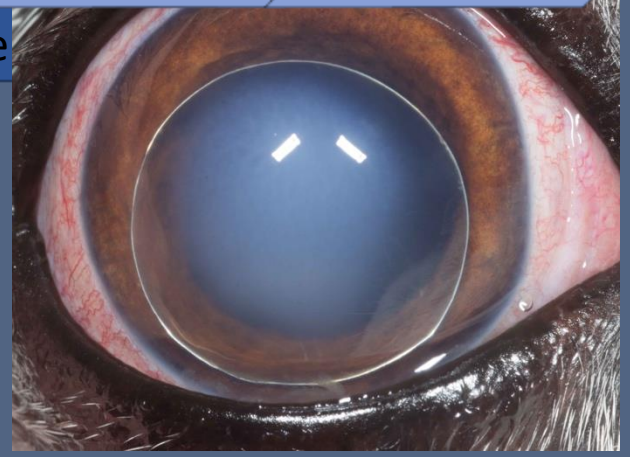
Zonule fiber breakdown
Genetics, uveitis, glaucoma, hypermature cataracts, senility

→Dislodgement of the lens

→Movement of that lens into the anterior or posterior chamber

→ Pain and blindness



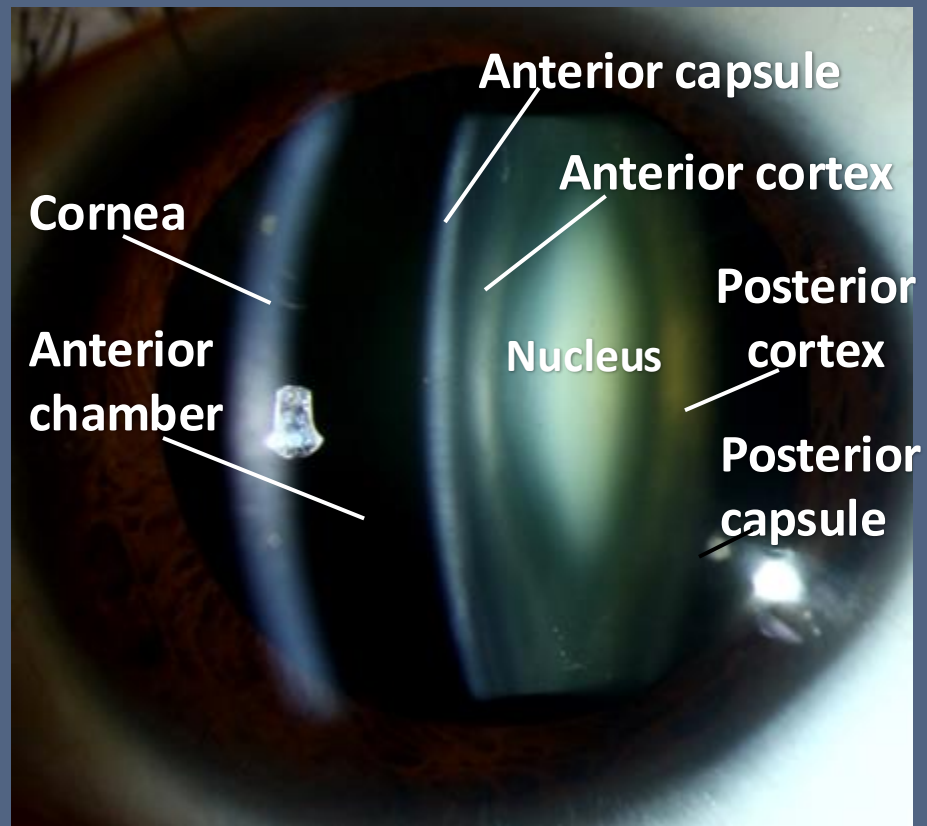


What tests should I do?

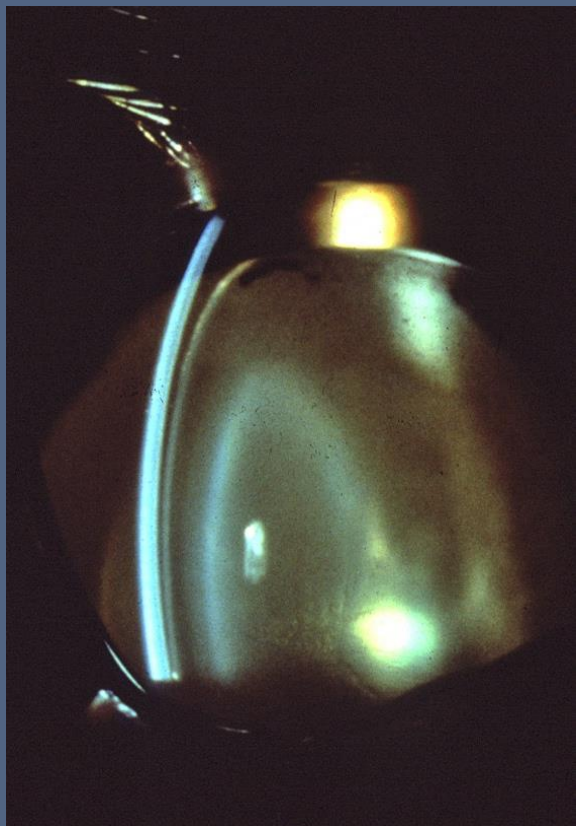
Ophthalmic examination!

- The lens is in the wrong place- slit beam is your friend!
  - Can you see the edge of the lens?
  - Can you see the pupillary margin?
  - Is there a clear anterior chamber or something in it?
- Typically painful
- +/- Episcleral injection
- +/- Elevated IOP
- +/- Corneal edema
- +/- Retinal detachment

Normal



Anterior Lens Luxation



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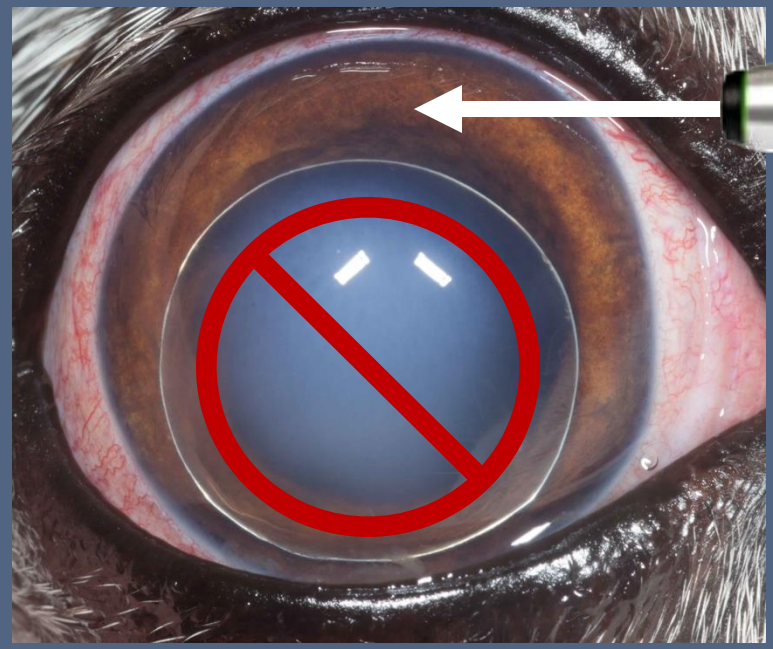
What tests should I do?

IOP!

Measuring IOP with an anterior lens luxation:

Measure where there is not lens right behind the cornea



1. Is it primary or secondary?

Primary

Secondary

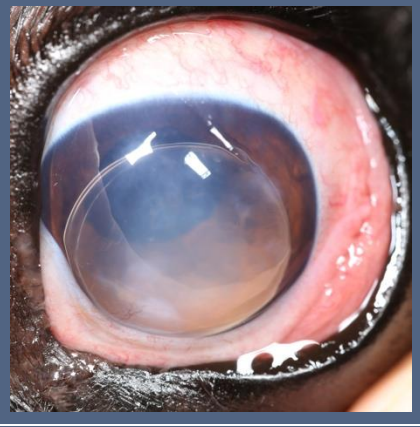
Inherited abnormality of the zonules

- Rule out secondary causes
- More likely if: Purebred, typical breeds (small terriers especially)

Secondary to another condition:

Glaucoma, uveitis, cataracts

- Look for buphthalmos, hypopyon, hyphema, cataractous lens
- More likely to be blind and therefore less urgent



How emergent is this?

Urgent

- Anterior and visual (dazzle?)
- High IOP difficult to control

→ *Start treating and call us!*

Less urgent

- Secondary to buphthalmos?
- Blind?
- Normal IOP?

→ *Provide pain management and direct clients to make an appointment with us*

Not sure? Call or email us!
We are always happy to help!

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Anterior lens luxation

****Latanoprost is CONTRAINDICATED** (miosis)**

+ Dazzle +/- Menace

Potential for Vision

1. Call us for urgent referral
2. For the ride to us: Pain management
   IOP control if IOP elevated (Dorzolamide!)

No dazzle or menace

Blind

1. Enucleation or:
2. Instruct client to make next available with us
3. Still happy to see these more urgently if you are not sure, patient is painful, etc.

Normotensive (IOP < 25 mmHg)

1. Monitor IOP closely

Hypertensive (IOP > 25 mmHg)

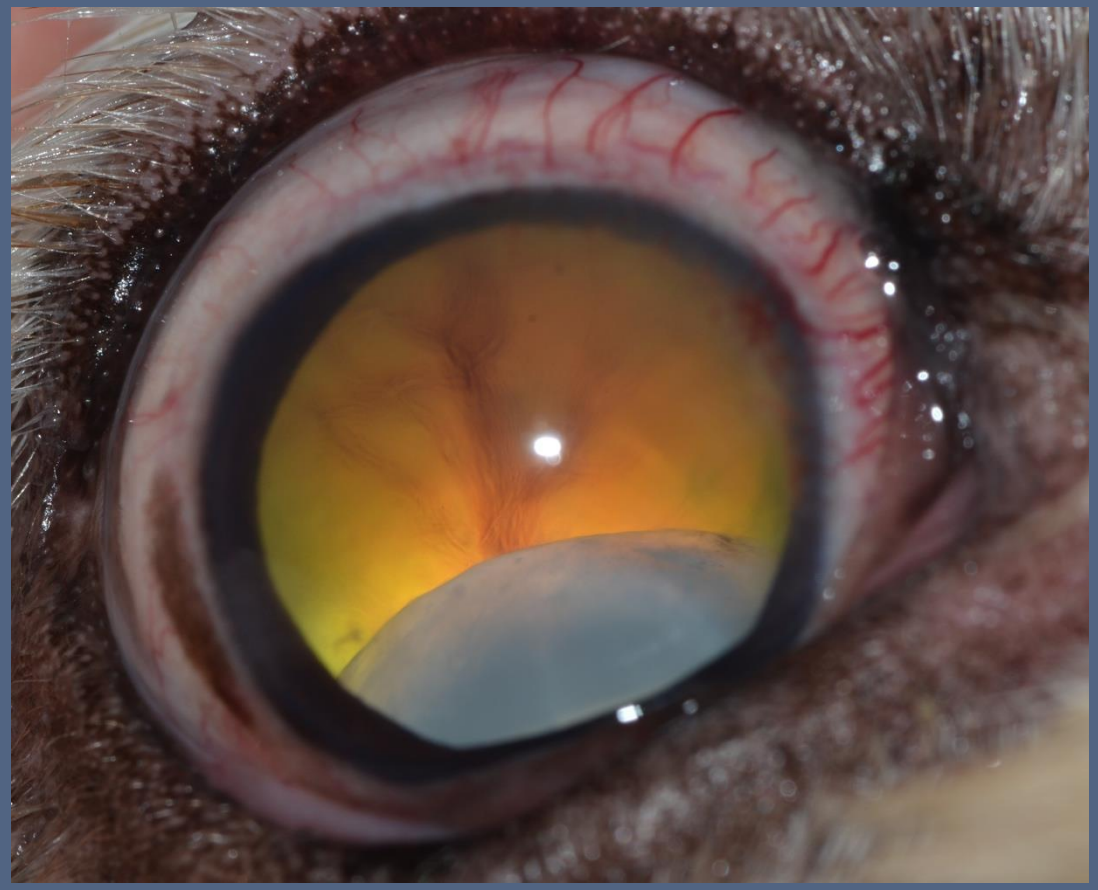
1. Dorzolamide 3x
2. IOP in 30-60 min
3. (If visual, won't refer, & IOP still > 25, consider 1-2 gm/kg mannitol IV over 20 min *if healthy*)
4. TGH: Dorzolamide q8h, +/- Timolol q12h, +/- pred q12h + pain meds

What about posterior luxations?

What should I look for?

- Lens usually ventral in vitreous chamber
- You can see the entire pupillary margin *in front of* the lens
- Deep anterior chamber
- Usually comfortable
- +/- elevated IOP

Latanoprost CAN be used to constrict pupil in front of lens
****Only use if you're sure****



Tend to be less emergent in the immediate phase, but likely to still have long-term consequences:

- Check IOP
- Instruct client to make an appointment with us or call if IOP elevated and difficult to control

Because cats are weird…Feline nuances:

Primary lens luxation is less common in cats

→ Most cases are secondary
→ Check for uveitis!

Anterior lens luxation tends to be less urgent in cats.

Big Anterior chambers = more space for the lens!

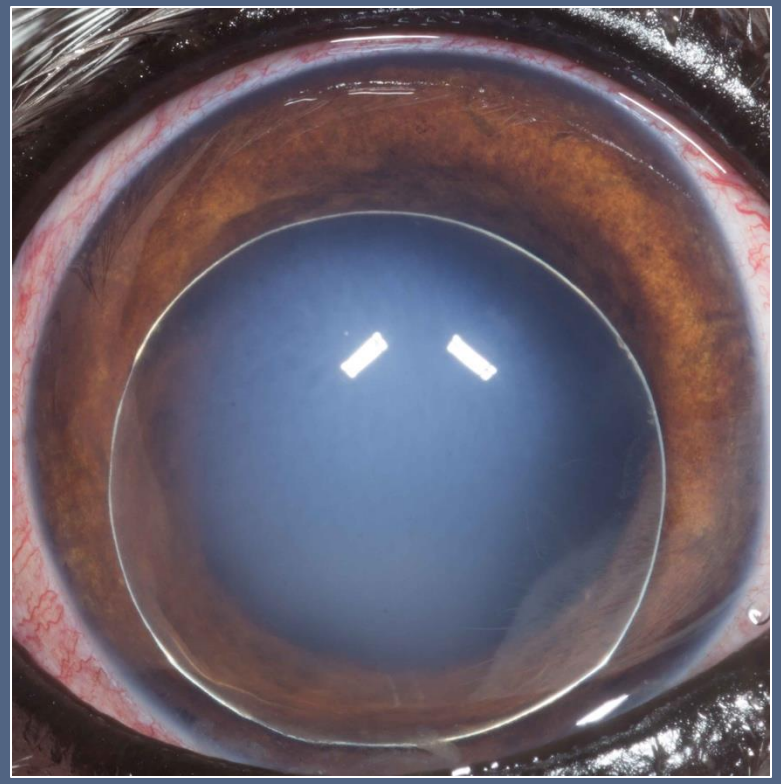
Latanoprost is not effective, especially long-term, in cats!

→ Dorzolamide our go-to
→ Can also use timolol

Same medication cautions:

1. Dorzolamide: Hypokalemia and hyperchloremia
2. Timolol: Watch HR
3. Prednisolone: Monitor for signs of ulceration

Questions about Lens luxation?



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Deep corneal ulcers

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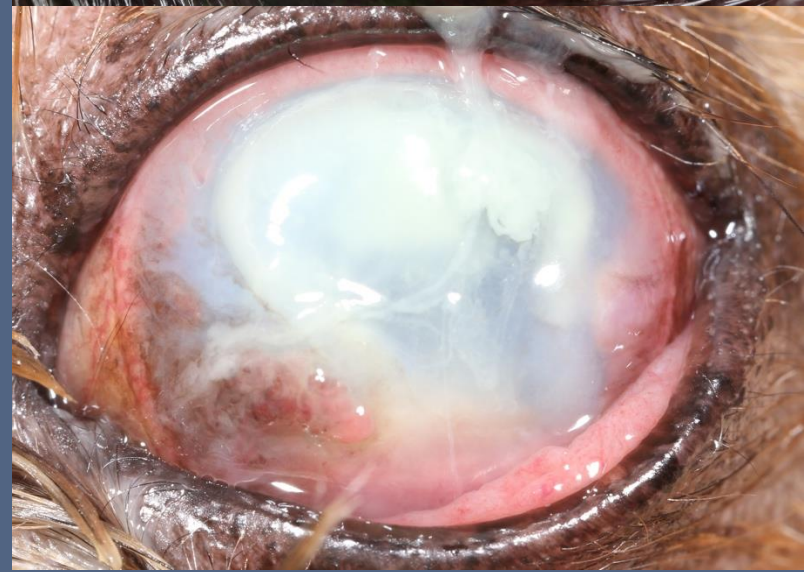
What is it?

Deep/melting ulcers and descemetoceles: Ulcers that have become infected and have lost stromal tissue

Possible characteristics:

- Appearance of depth
- White/creamy appearance
- ”Melting” appearance
- Tend to have more severe uveitis
- Tend to be very painful



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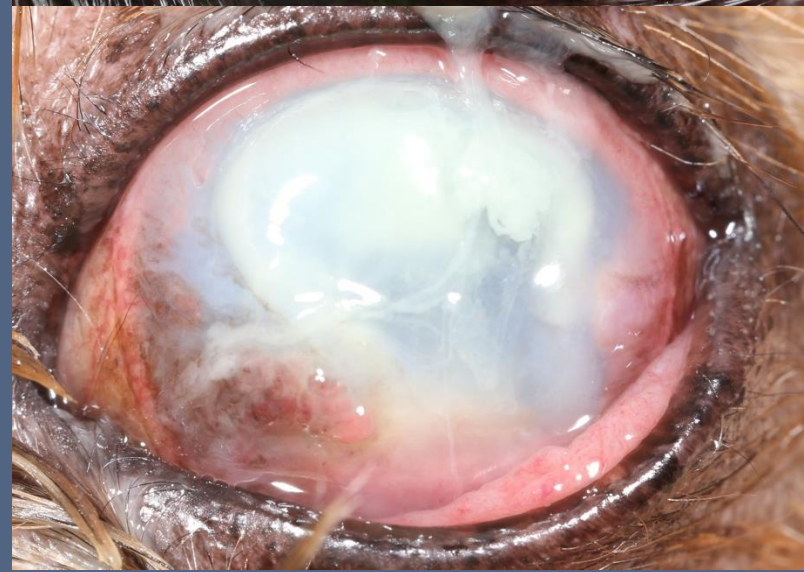
What tests should I do?

- Examination
- Cytology and culture
- Fluoresceine stain
- IOP, if safe



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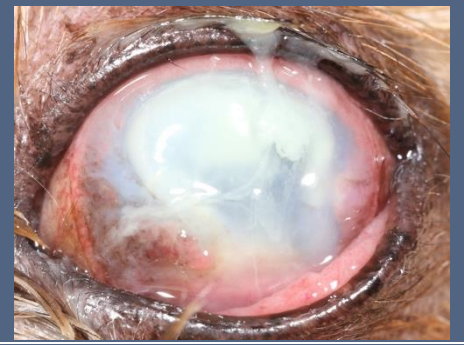
How deep?

Descemetocele

< 50% deep



- Looks deep
- Ring of stain (Descemet's membrane does not stain)

- Shallow depth
- Entire lesions takes up stain

Not sure or worried? Call or email us!
We are always happy to help!

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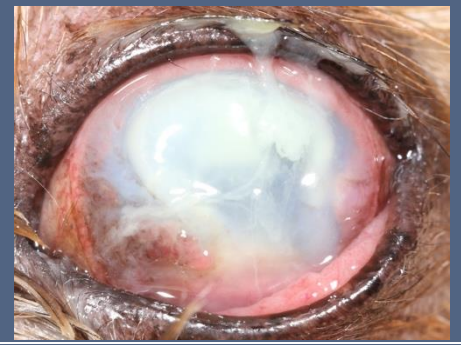
How emergent is this?

Emergent

Urgent



- Descemetocele: Imminent risk of rupture
- > 50% depth

- < 50% depth: Still very serious but not in imminent risk of rupturing

Note sure or worried? Call or email us!
We are always happy to help!

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Ulcer with signs of infection

Antibiotics!

- Typically multiple to improve coverage: Ofloxacin + Cefazolin or Neo-poly-gram
- +/- oral doxycycline
- Frequent! Q2 hours

Anti-collagenase

- Serum/plasma
- Frequent! Q2 hours

**Caution: Products that claim to replace serum or repair the cornea not adequate substitutes*

Pain management

- Atropine solution
- Less frequent: q12-24 hours
- Oral pain medication: NSAIDs a great choice if uveitis present (likely)

Protect the eye

- Cone!
  Hard plastic only. Soft cones and donuts do NOT protect the eye!
- Rest!

CAUTIONS

NO STEROIDS!

Avoid ointments

Carefully consider antibiotic changes

Never ever ever debride!

Carefully consider pain management:

- NEVER send proparacaine home!
- Topical NSAIDs not appropriate for pain

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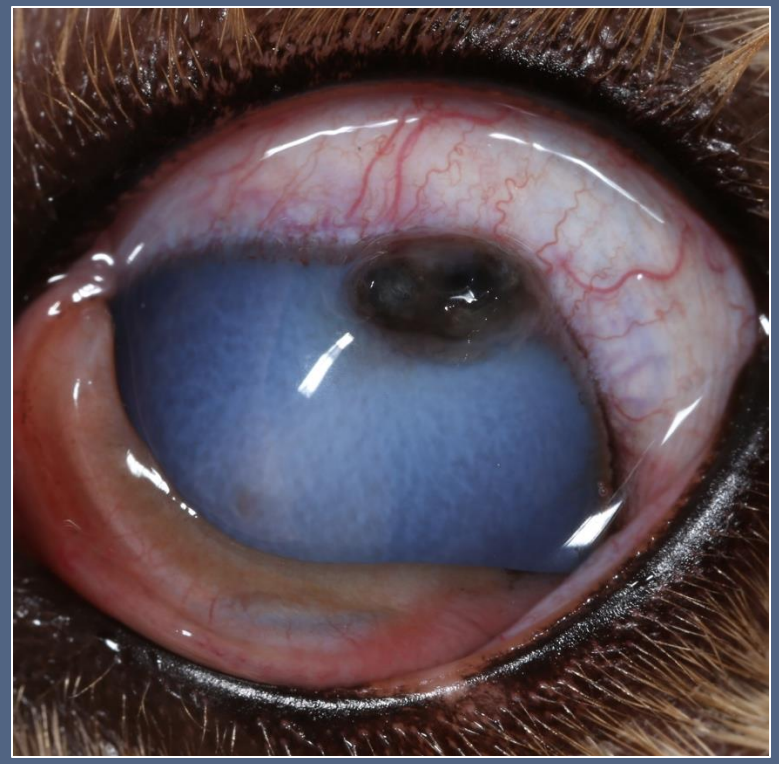
Questions about deep ulcers?

Corneal ruptures (perforations) and full-thickness lacerations



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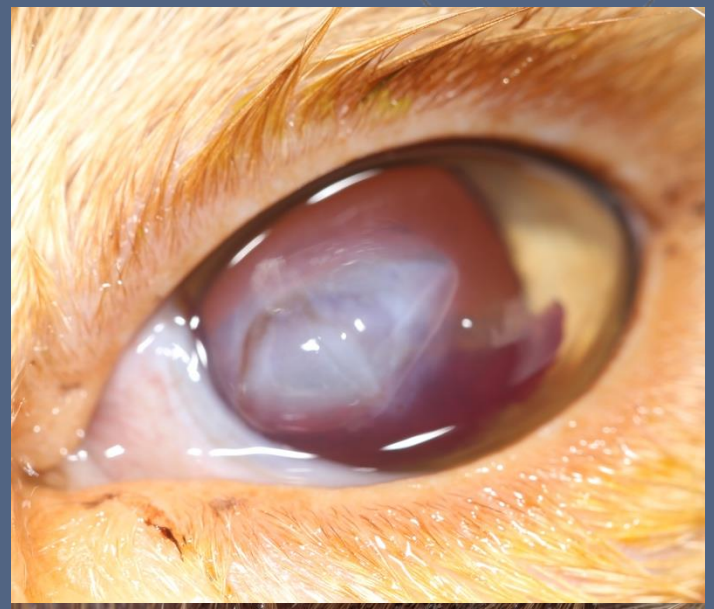
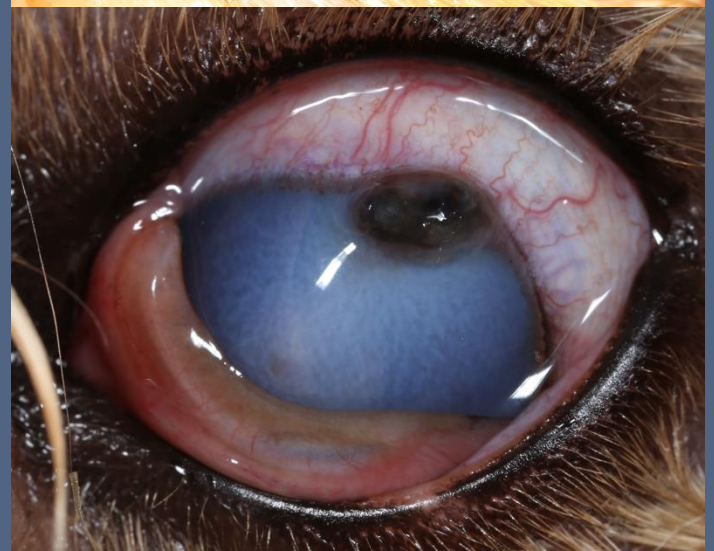
What is it?

- Full-thickness corneal defect
  - *Ruptured ulcer, lacerations*

- *May have iris prolapse*
- *Often have intraocular changes: Hyphema, fibrin, severe uveitis*
- *May be leaking intraocular fluid*
- *Eye may look "shriveled" or smaller*





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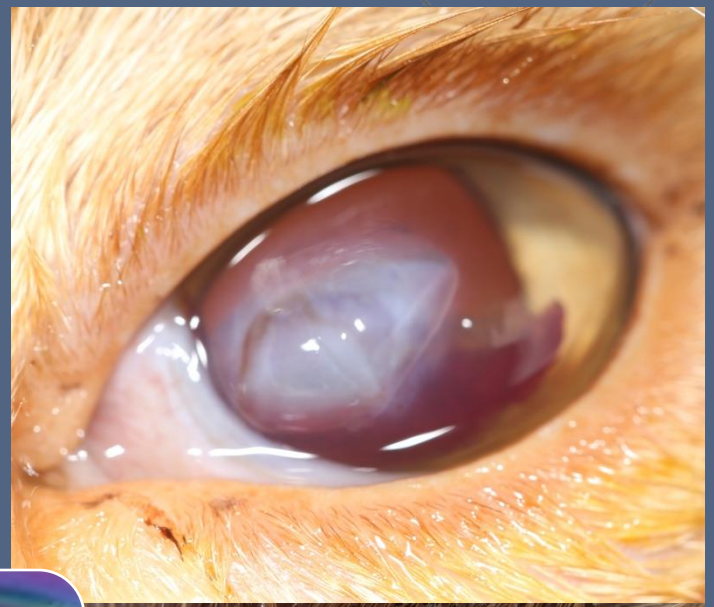
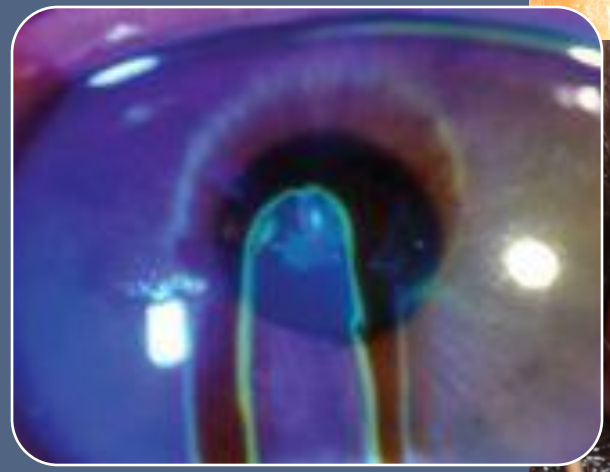
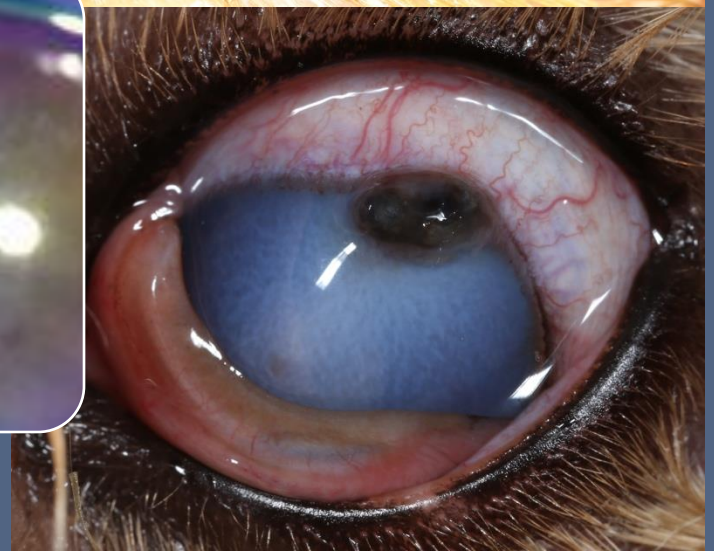
What test(s) should I do?

- As little as possible! *Fragile eye*
- Menace, dazzle, PLR
  - Is the eye visual?
  - Dazzle and consensual PLR can tell you potential for vision even if you cannot see into the eye
- +/- Stain
  - Seidel test: Is the eye actively leaking?
- Note: You CAN apply proparacaine to facilitate exam!
- Call us!







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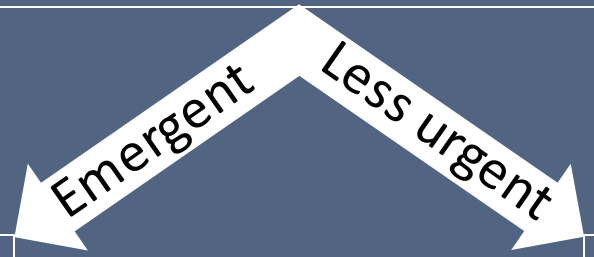
How emergent is this?



- Any potential for vision!
- + Menace, dazzle, consensual PLR

→ *Start treating and call us!*

- Blind

→ *Provide pain management, consider enucleation*

Not sure? Call or email us!
We are always happy to help!

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Rupture/Full-thickness

Antibiotics!

- Typically multiple to improve coverage: Ofloxacin + Cefazolin or Neo-poly-gram
- +/- oral doxycycline
- +/- frequent (infection or laceration?)

Anti-collagenase

- Serum/plasma
- Frequent! Q2 hours

**Caution: Products that claim to replace serum or repair the cornea not adequate substitutes*

Pain management

- Atropine solution
- Less frequent: q12-24 hours
- Oral pain medication: NSAIDs a great choice if uveitis present (likely)

Protect the eye

- Cone!
  Hard plastic only. Soft cones and donuts do NOT protect the eye!
- Rest!

CAUTIONS

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Never ever ever debride!

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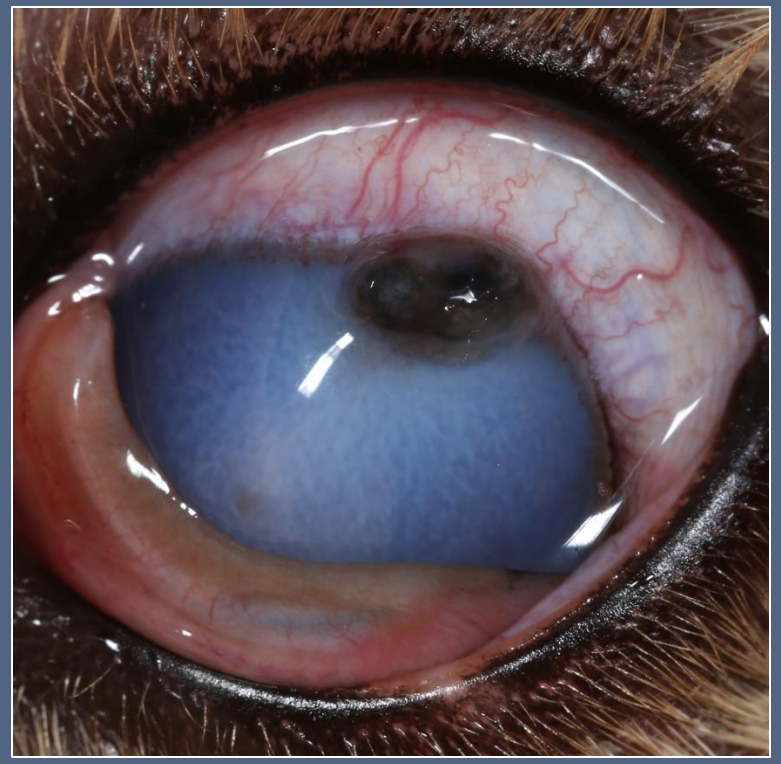
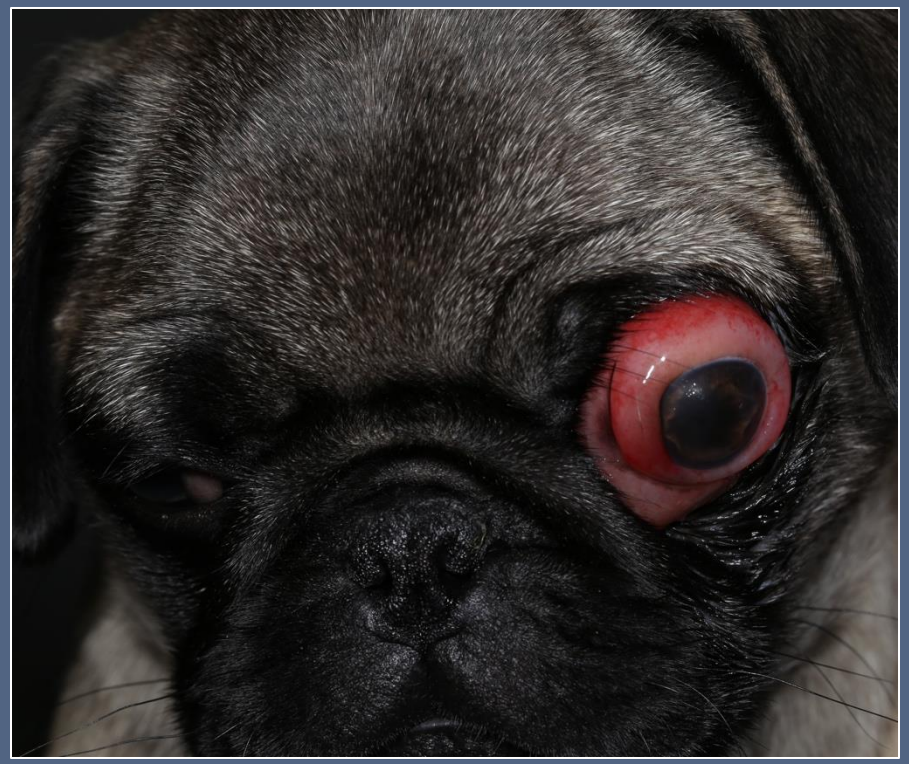
Questions about ruptures?



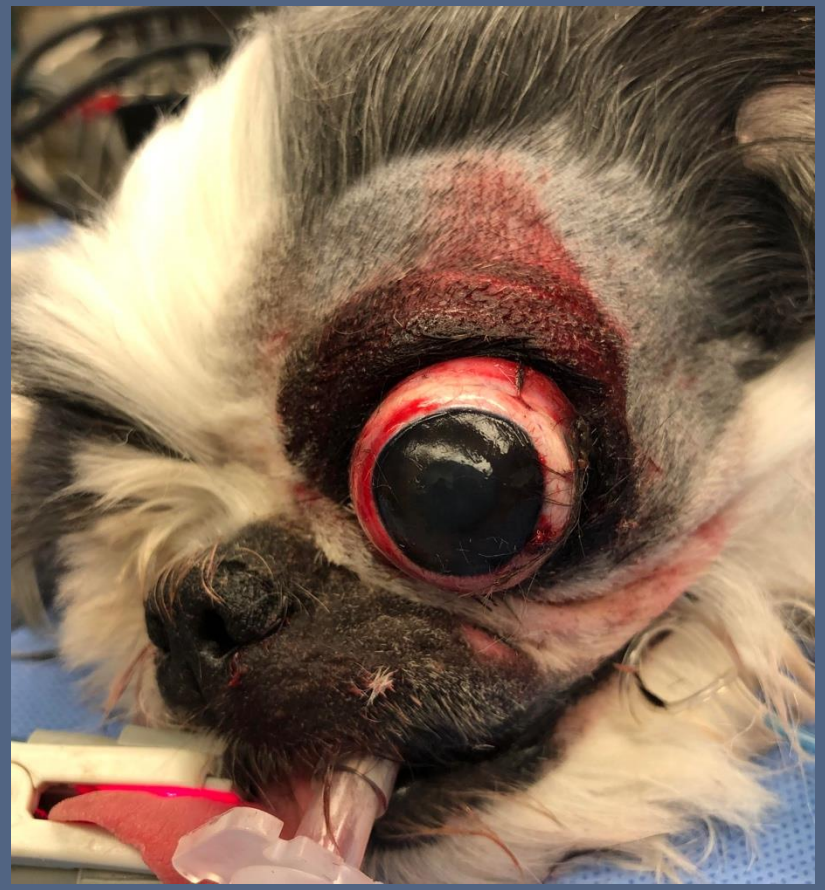
Proptosis



VEC OF NYC

What is it?

- Eye is out of the orbit
- Eyelids are stuck behind the eye
- **Implies significant trauma!**



VEC OF NYC

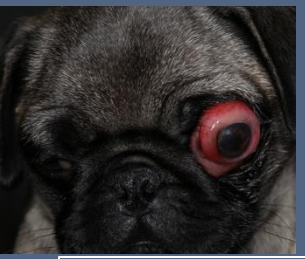
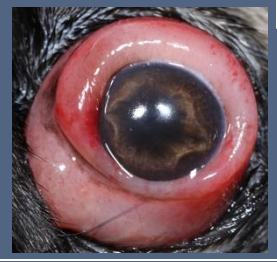
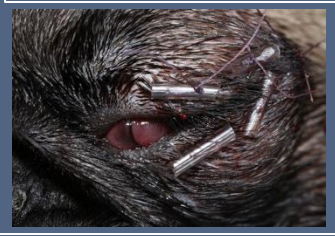
What test(s) should I do?

- Thorough history and full systemic exam
  - Trauma elsewhere? Patient stable?
- Ophthalmic:
  - If truly proptosed, will not be able to blink = cannot assess menace or dazzle
  - Consensual PLR is your friend!
  - Thorough assessment of extraocular tissues
    - How many muscles torn?
    - Can I see the optic nerve?
  - Fluoresceine stain
    - Eye often dry and ulcerated

OF NYC VEC

All emergent for patient comfort!

To keep the eye or not to keep the eye?

Tarsorrhaphy

- Globe damage: Minimal or superficial
- Direct and/or consensual PLR present
- *2 or less extraocular muscles torn!*
- *Optic nerve NOT visible!*

Enucleation

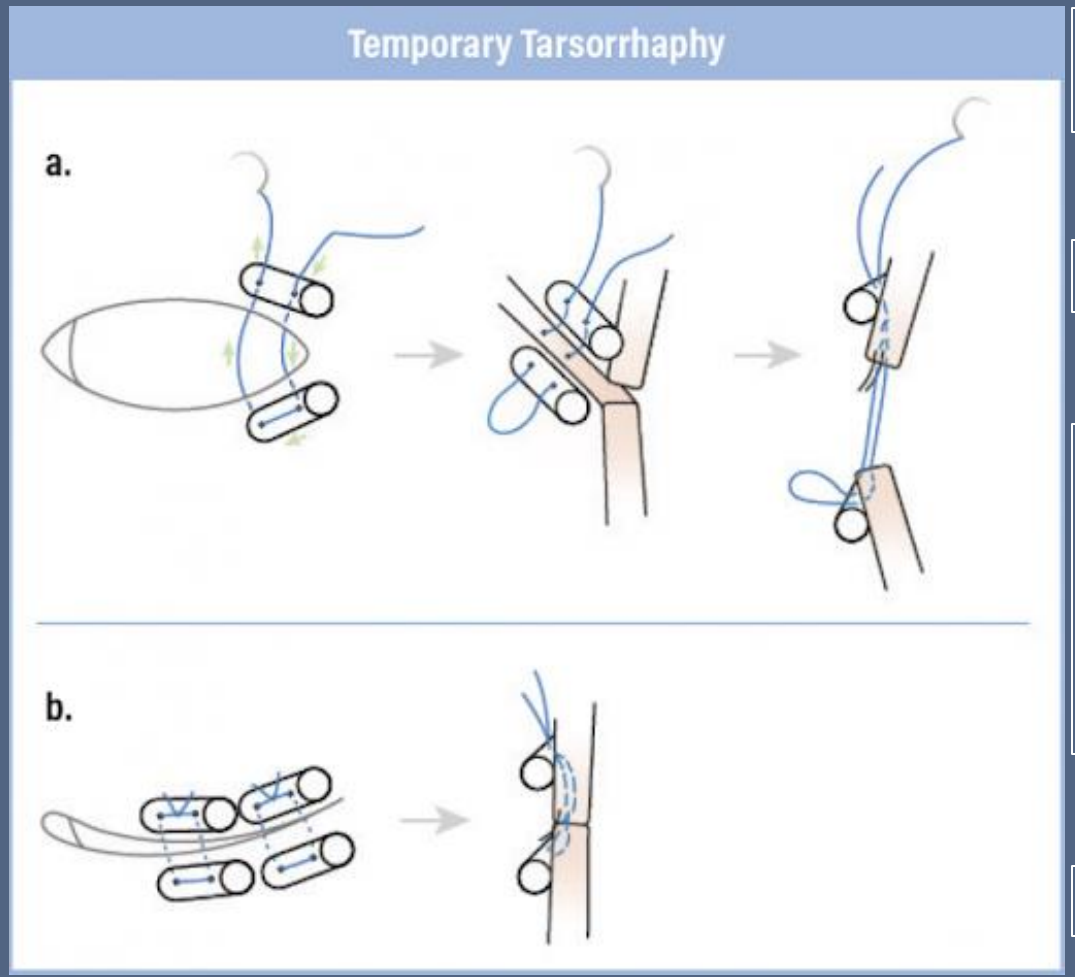
- More globe damage: Rupture, hyphema
- Consensual PLR absent
- *3 or more extraocular muscles torn!*
- *Optic nerve visible!*

Immediate:
1. Stabilize patient
2. Pain management
3. Lubricate the eye!

→ Decide enucleation or temporary tarsorrhaphy

****CAUTIONS****

- Use bumpers! The sutures will be under tension
- Be mindful of suture placement!
- Leave inside corner open for medicating
- Leave long suture tags!



Heavy sedation or general anesthesia

↓

+/- lateral canthotomy

↓

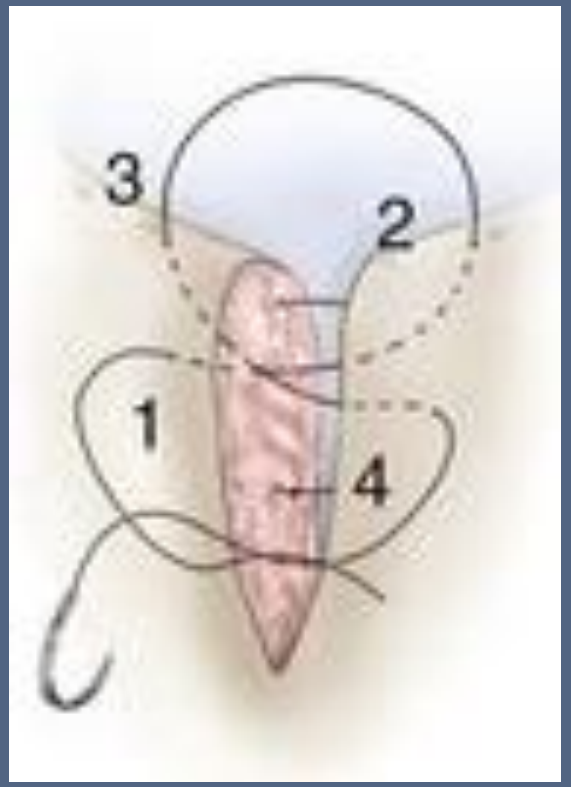
2 horizontal mattress sutures *with bumpers* *through the eyelid margins*
Non-absorbable suture (4-0 nylon)

↓

Close lateral canthus

Figure-of-8 Suture (Recommend 5 or 6-0 Vicryl)

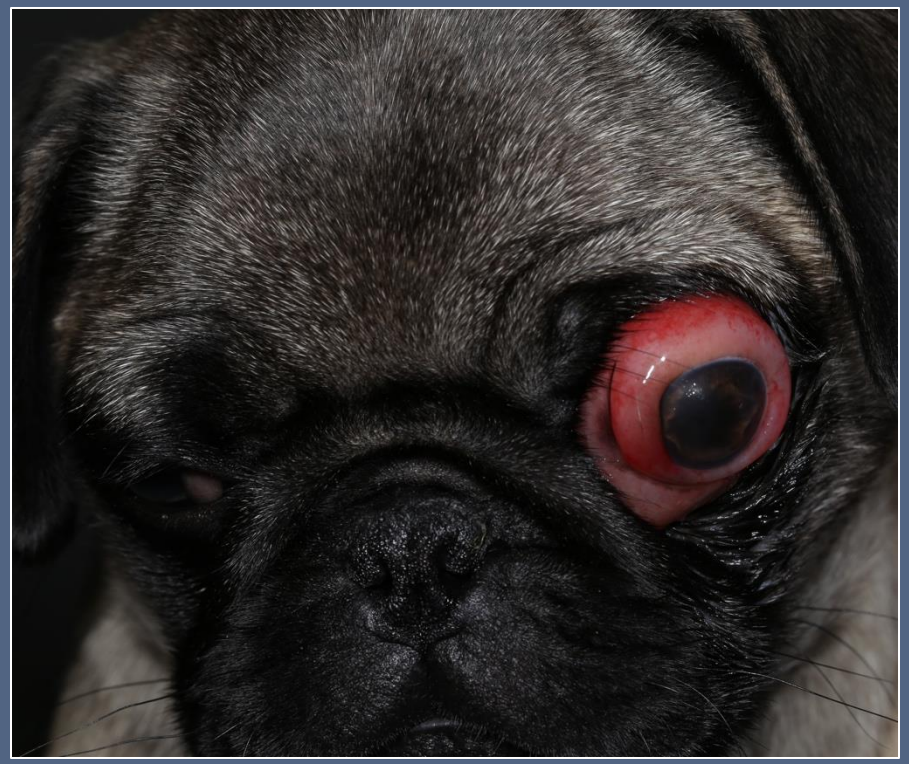
1. Skin to cut
2. Cut to meibomian opening (opposite side)
3. Meibomian opening to cut (opposite side again)
4. Cut to skin (opposite side again)



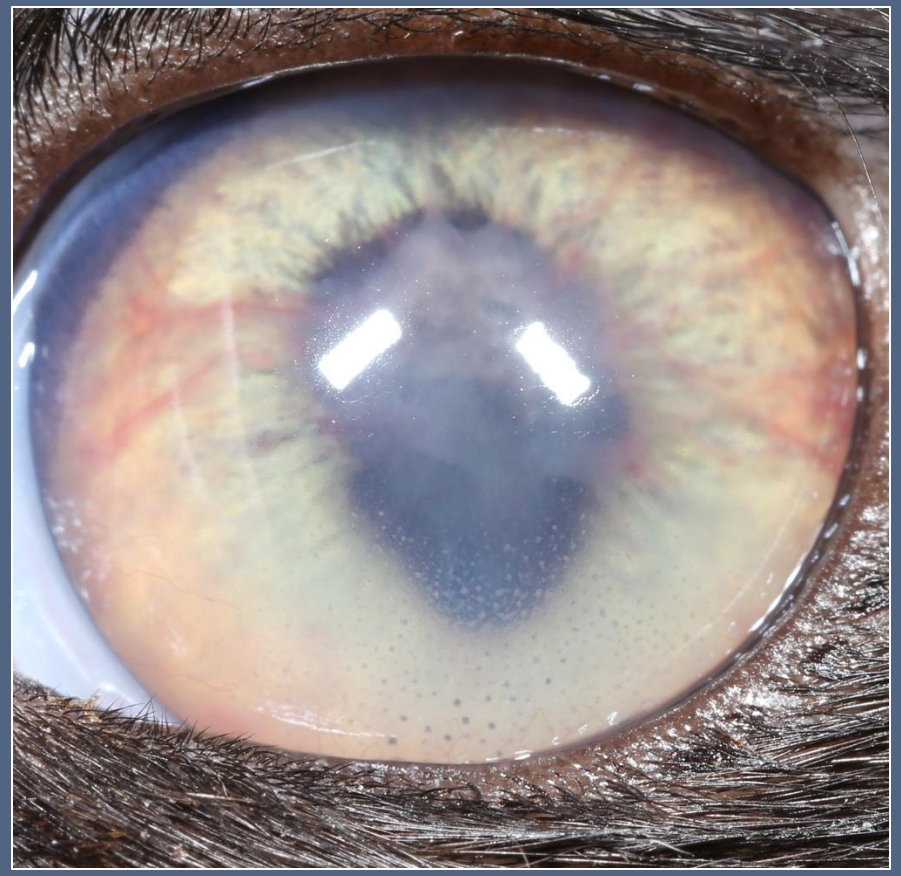
TIPS:

- Smaller is better: 1-2 mm length for the entire stitch!
- Close the rest with simple interrupted
- Incorporate the ends of each into the knot of the next: Keeps suture away from the cornea

Questions about proptosis?

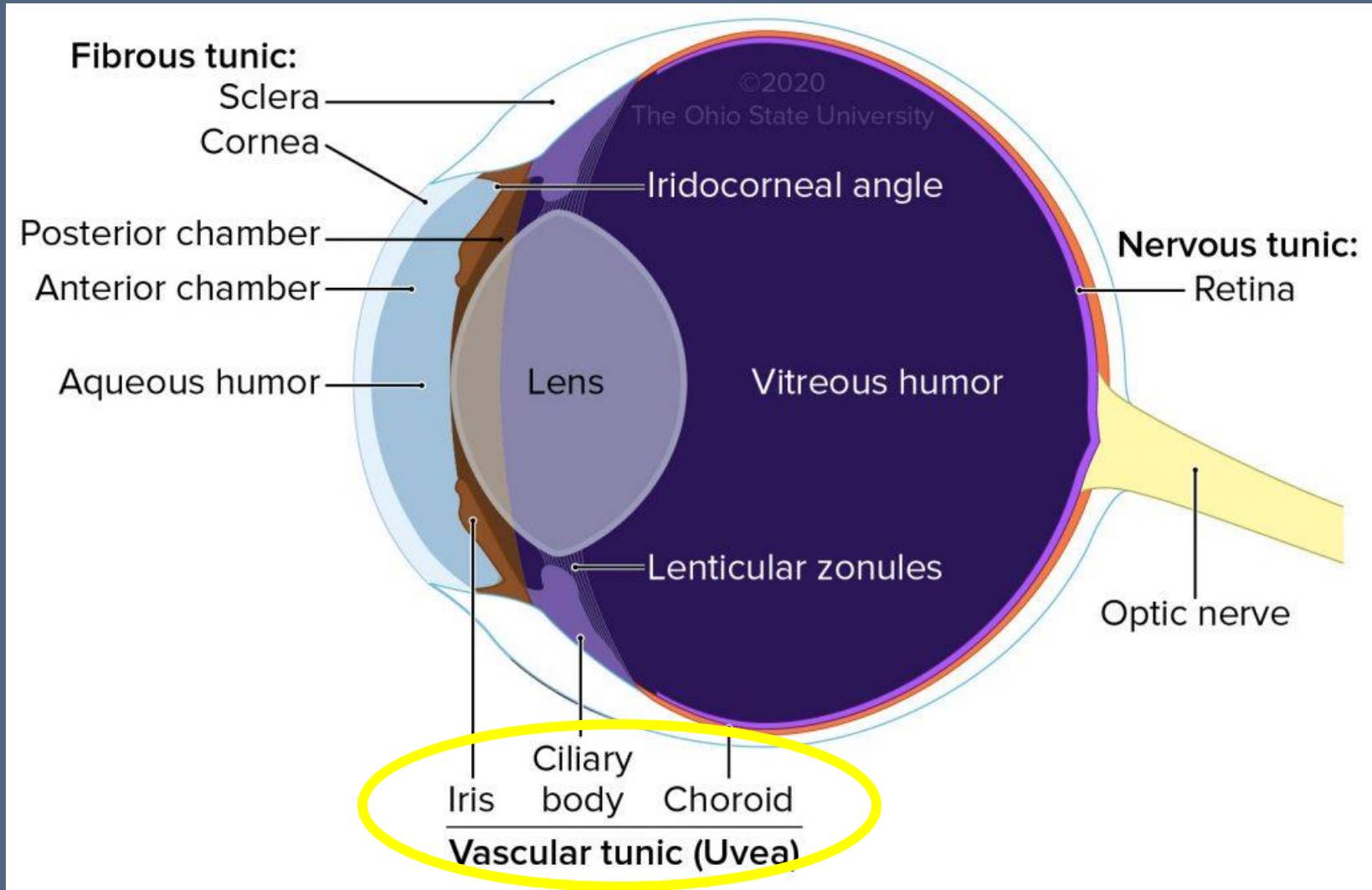


Uveitis



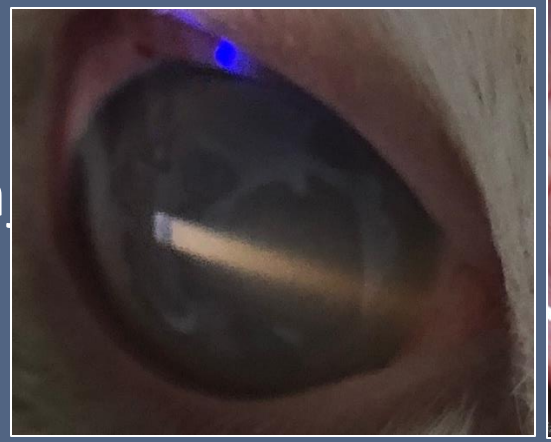
What is it?

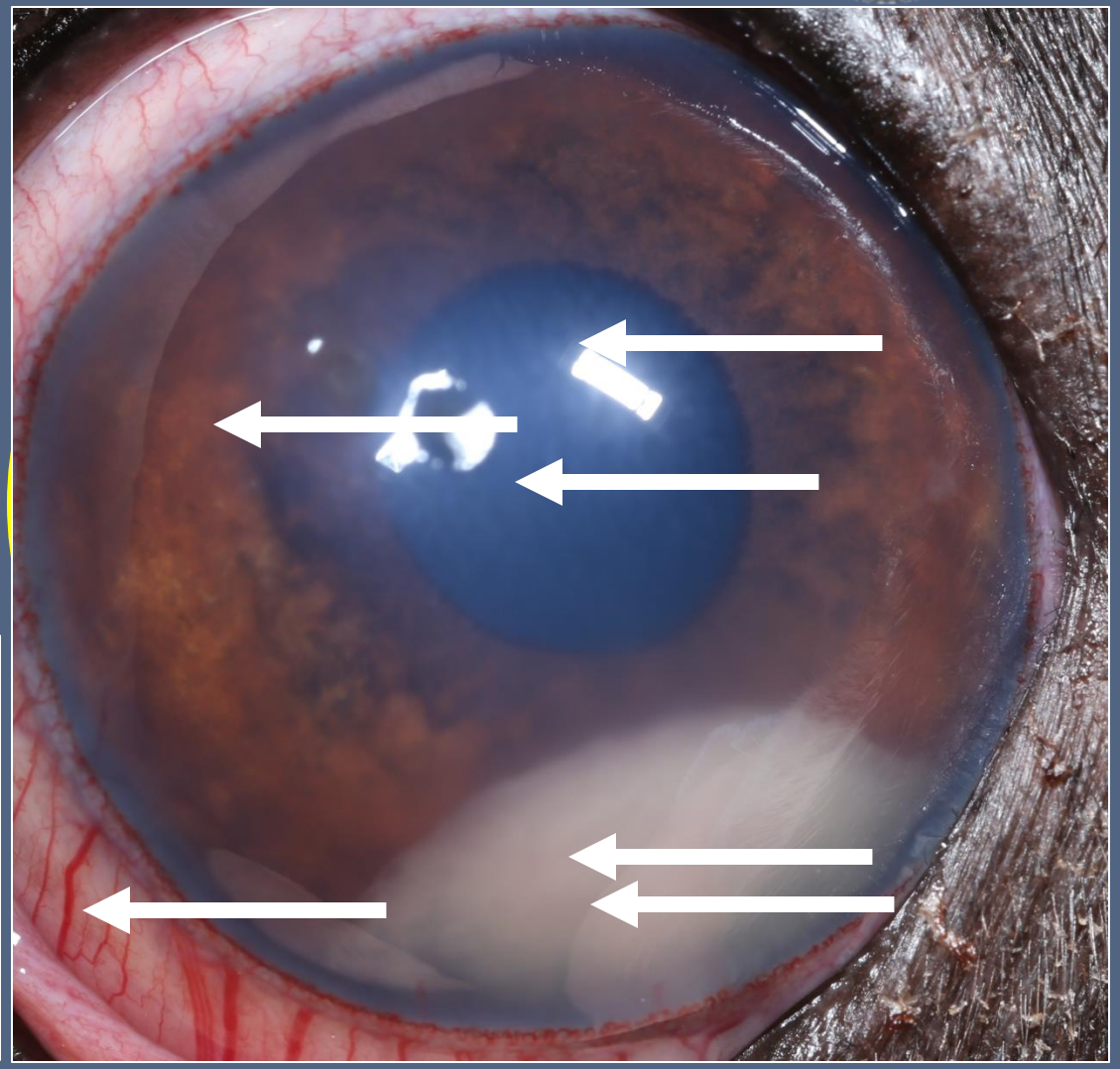
- Inflammation of the uveal tract
- "Anterior"
  - Affecting the iris and ciliary body
- "Posterior"
  - Affecting the choroid
- Can be both! ("Panuveitis")



What are the clinical signs?

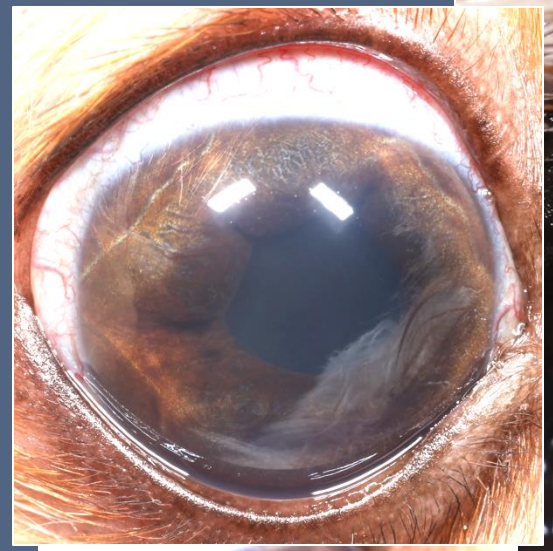
- "Flare": Protein in the anterior chamber (AC)
  - Hazy/cloudy appearance in front of the lens and iris but behind the cornea
- Cell: Inflammatory cells in the AC
- +/- Fibrin
- +/- Keratic precipitates
- +/- Rubeosis iridis
- +/- Hypopyon
- Episcleral injection and con hyperemia
- Miosis

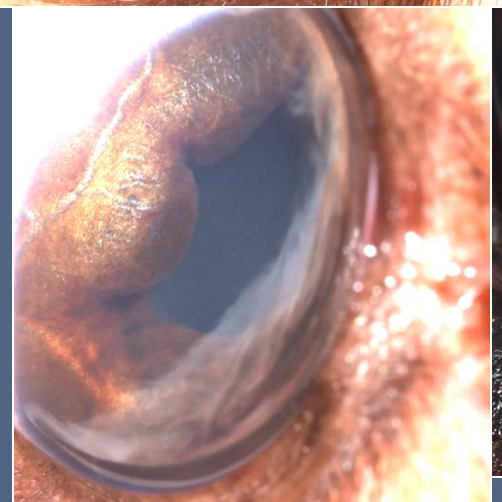


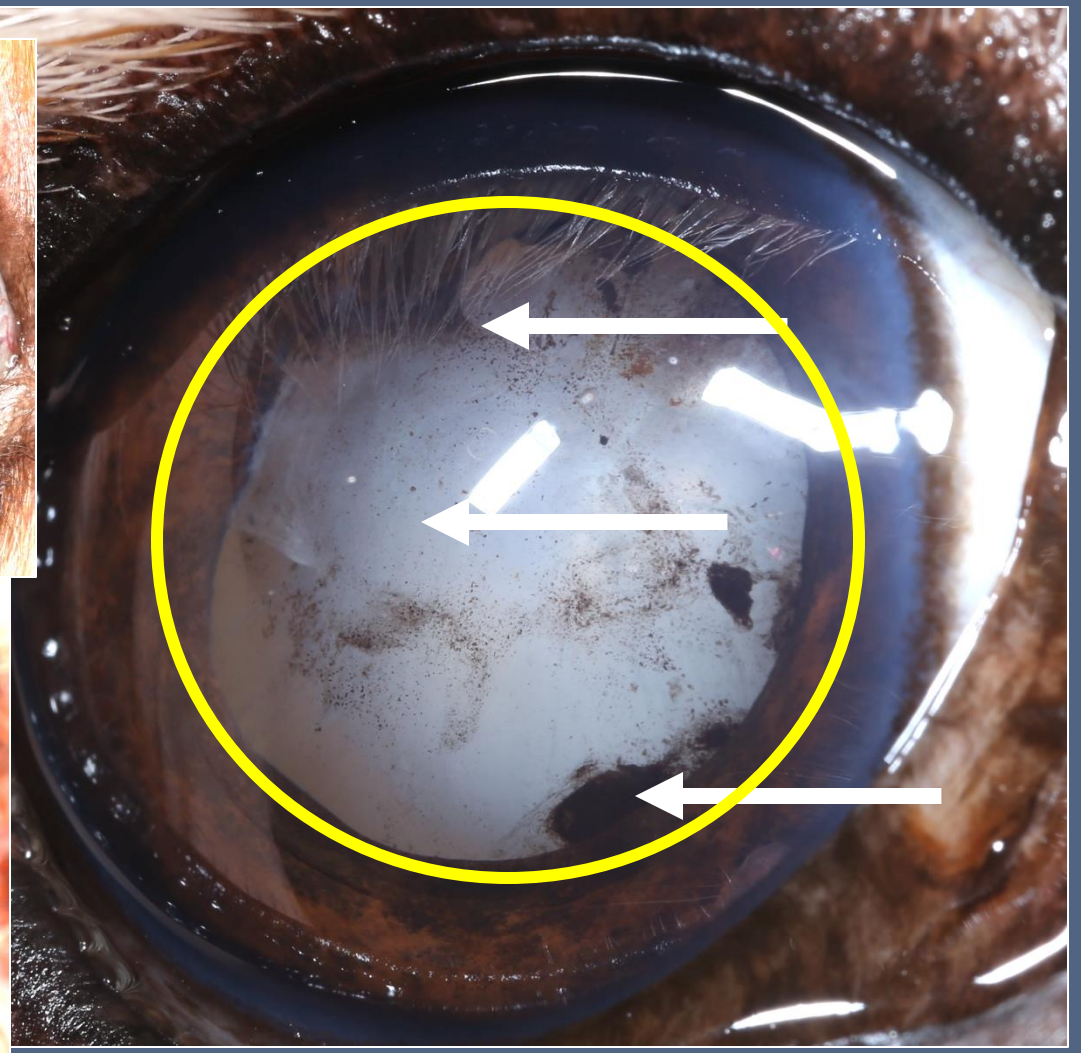


Chronic clinical signs:

- Pigment deposition
  - Often from the iris onto the lens capsule
- → Synechia
- → Dyscoria
- → Iris Bombe
- Cataract
- Glaucoma
  - Pupillary block
  - Clogging and scarring of iridocorneal drainage angle

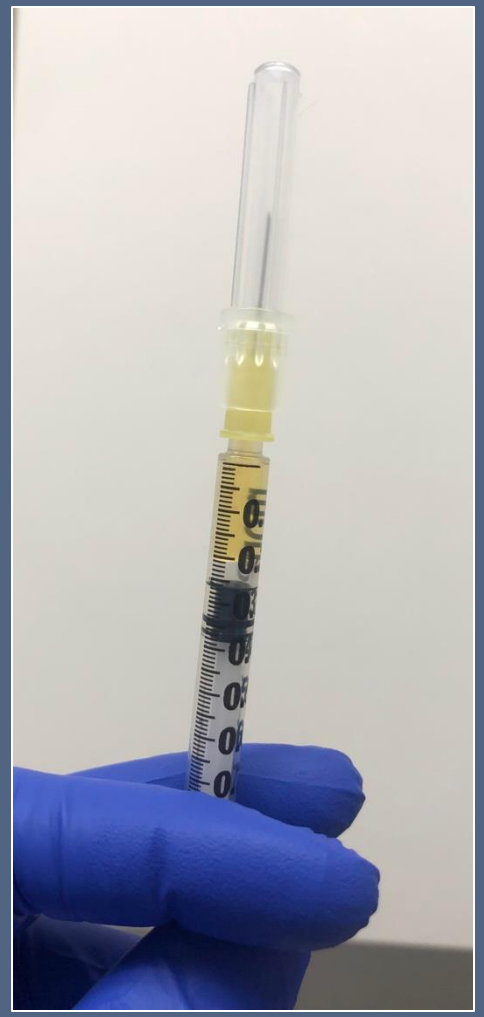






What tests should I do?

- Ophthalmic Examination
  - IOP:
    - Low: Appropriate for inflammation
    - Monitor for glaucoma
  - Fluoresceine stain:
    - Help find cause (Reflex from ulcer?)
    - Safe for steroids?
- Aqueocentesis – Cytology +/- culture
- Systemic Examination
- Systemic diagnostics
  - CBC, chemistry, UA
  - Infectious disease testing appropriate for the area
  - If with hemorrhage: Consider BP and assessment for coagulopathies



OF NYC VEC

Is this related to systemic disease?

Primary Ocular

- Is there another ocular condition that can cause uveitis?
- Does the case fit primary ocular uveitis diseases?
- Is the patient otherwise acting healthy?
- Systemic workup normal?

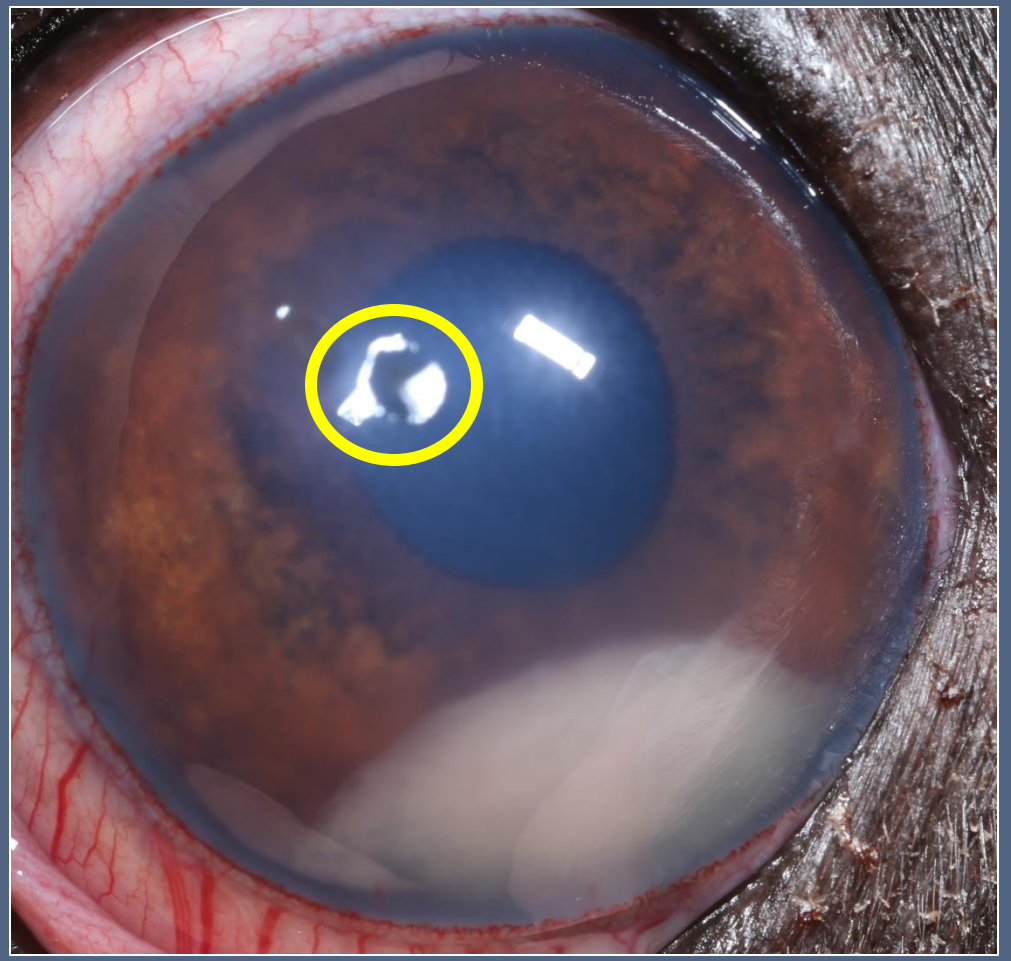
Systemic

- Is the patient acting otherwise sick?
- Workup abnormalities?
- Ocular causes ruled out?
- Bilateral uveitis?

Not sure or worried? Call or email us!
We are always happy to help!

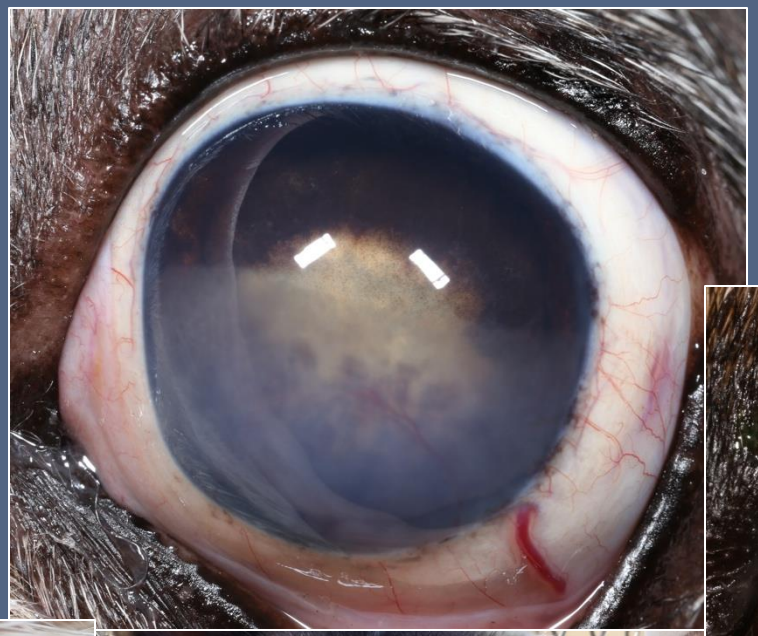
Is there an ocular disease that can cause uveitis?

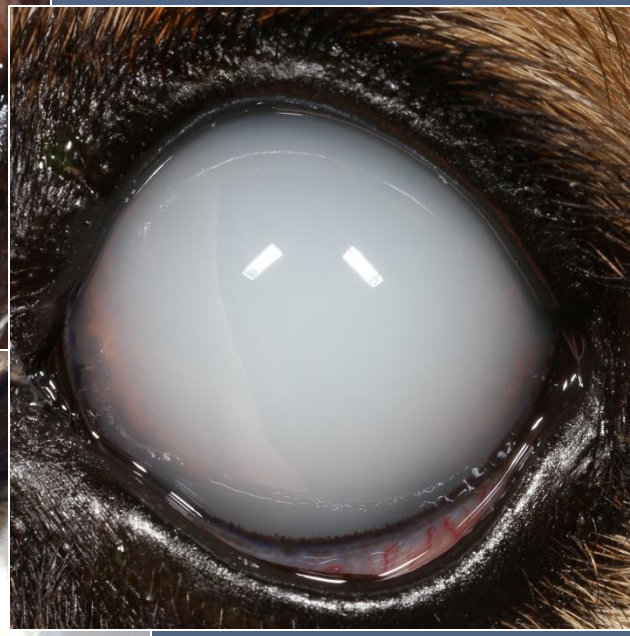
- Corneal ulcer?
  - Reflex uveitis common with ulcers
    - Superficial ulcer: Tends to be mild (trace to 1+ flare)
    - Infected/stromal ulcer: Can be more severe
- Glaucoma?
  - Even primary glaucoma can cause uveitis when IOP is elevated
    - Tends to be mild (trace to 1+ flare)
- Lens luxation?
  - Especially in acute phase

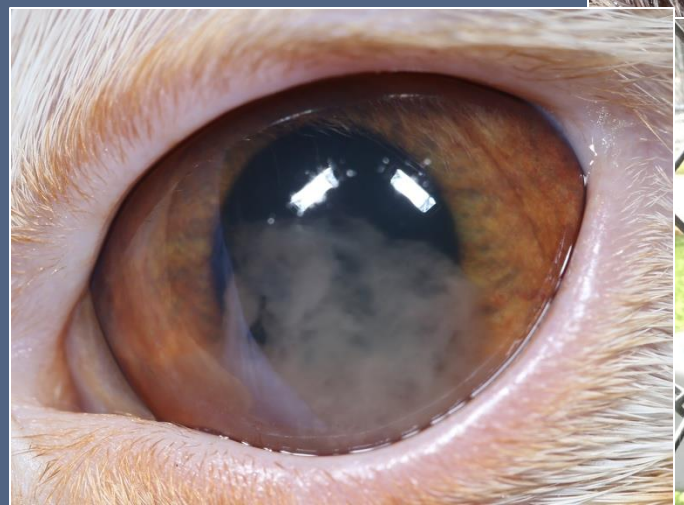


Does the case fit primary ocular uveitis diseases?

- Golden Retriever Pigmentary Uveitis
- Ocular Melanosis
- Uveodermatologic Syndrome
- Lipemic uveitis
- Immune-mediated uveitis
- FIP related uveitis





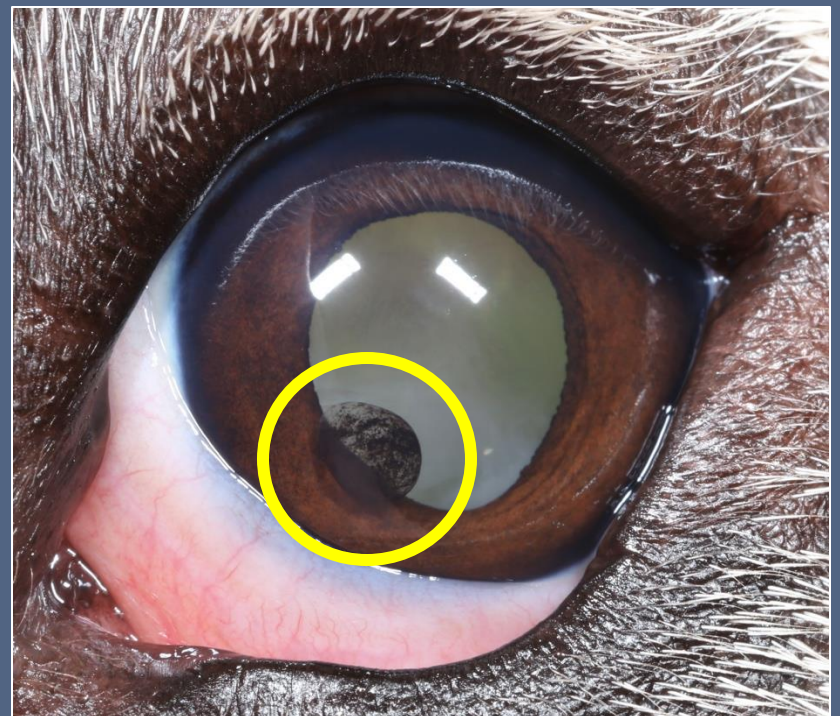


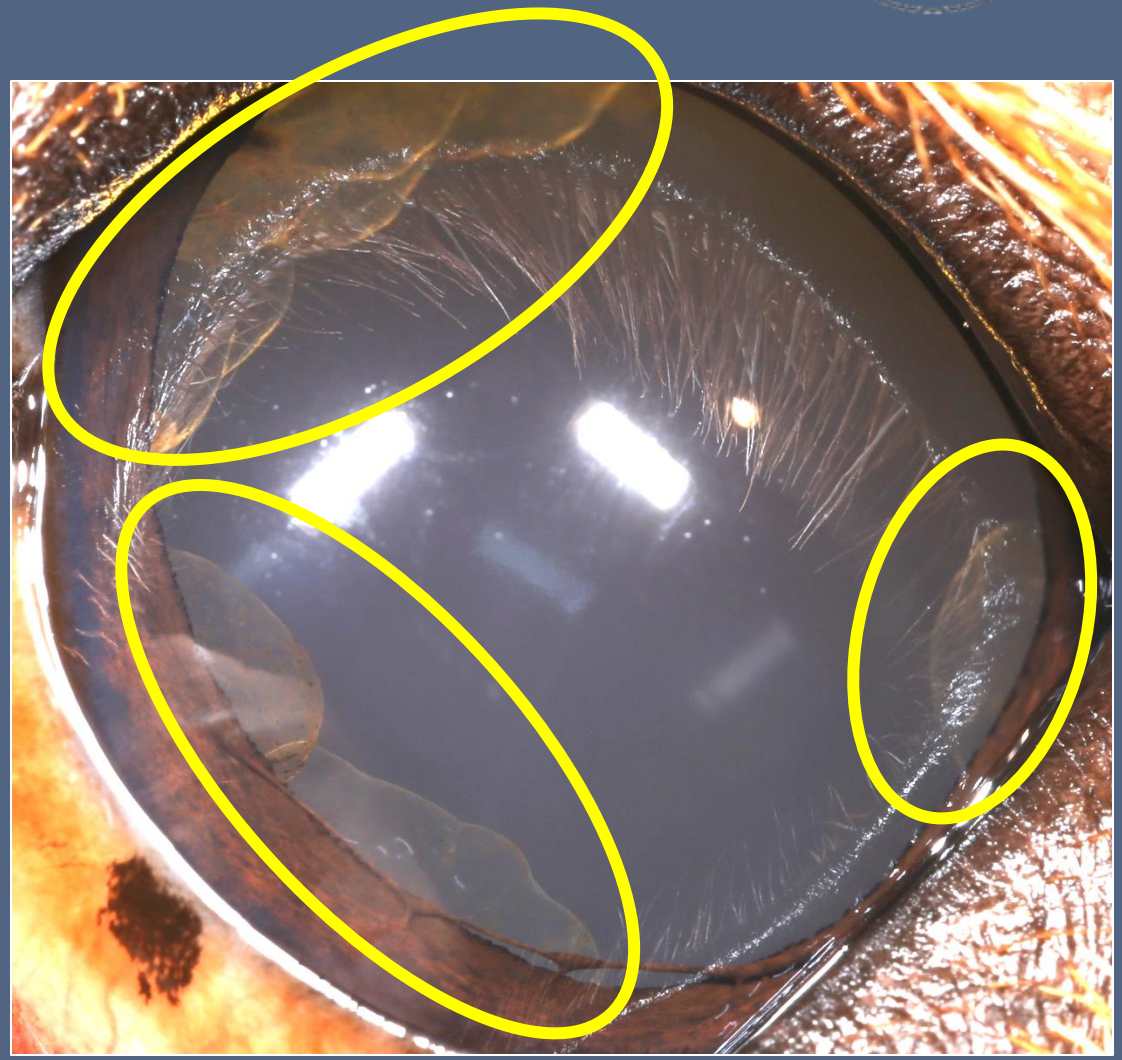
Golden Retriever Pigmentary Uveitis

- Bilateral disease
  - But can be asymmetric
- Largely of Golden Retrievers
  - Occasionally seen in other breeds
    - Labs!
- Prevalence: 5-10% of NA Goldens!
- Average age of onset: 8-10 years

Golden Retriever Pigmentary Uveitis

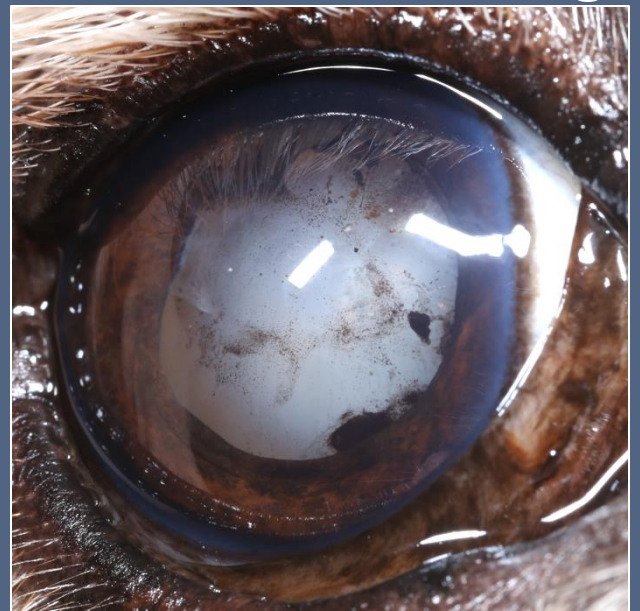
- Associated with pigment dispersion in the eye
  - Pigment on the anterior lens capsule and cysts are early signs

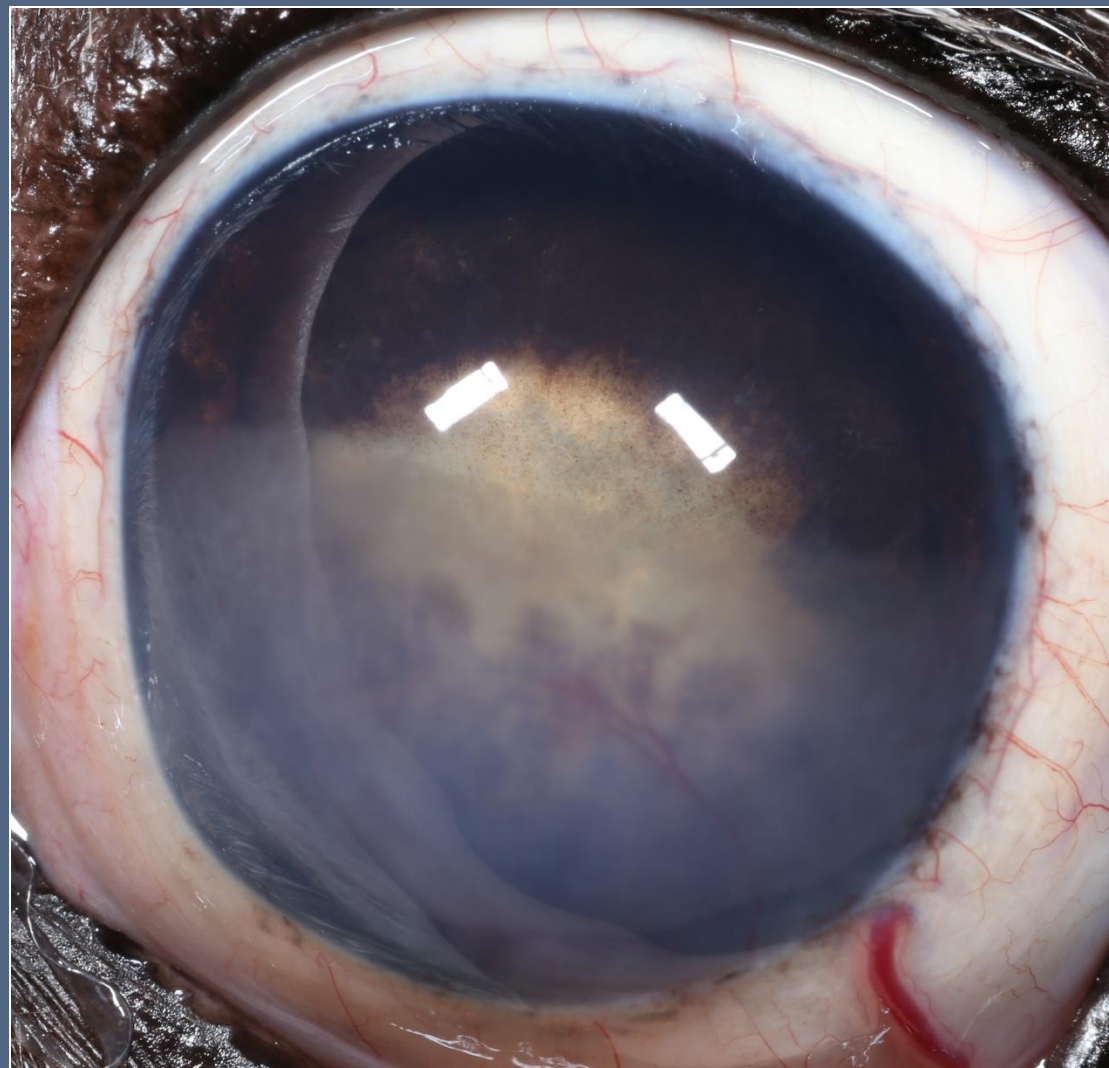




Golden Retriever Pigmentary Uveitis

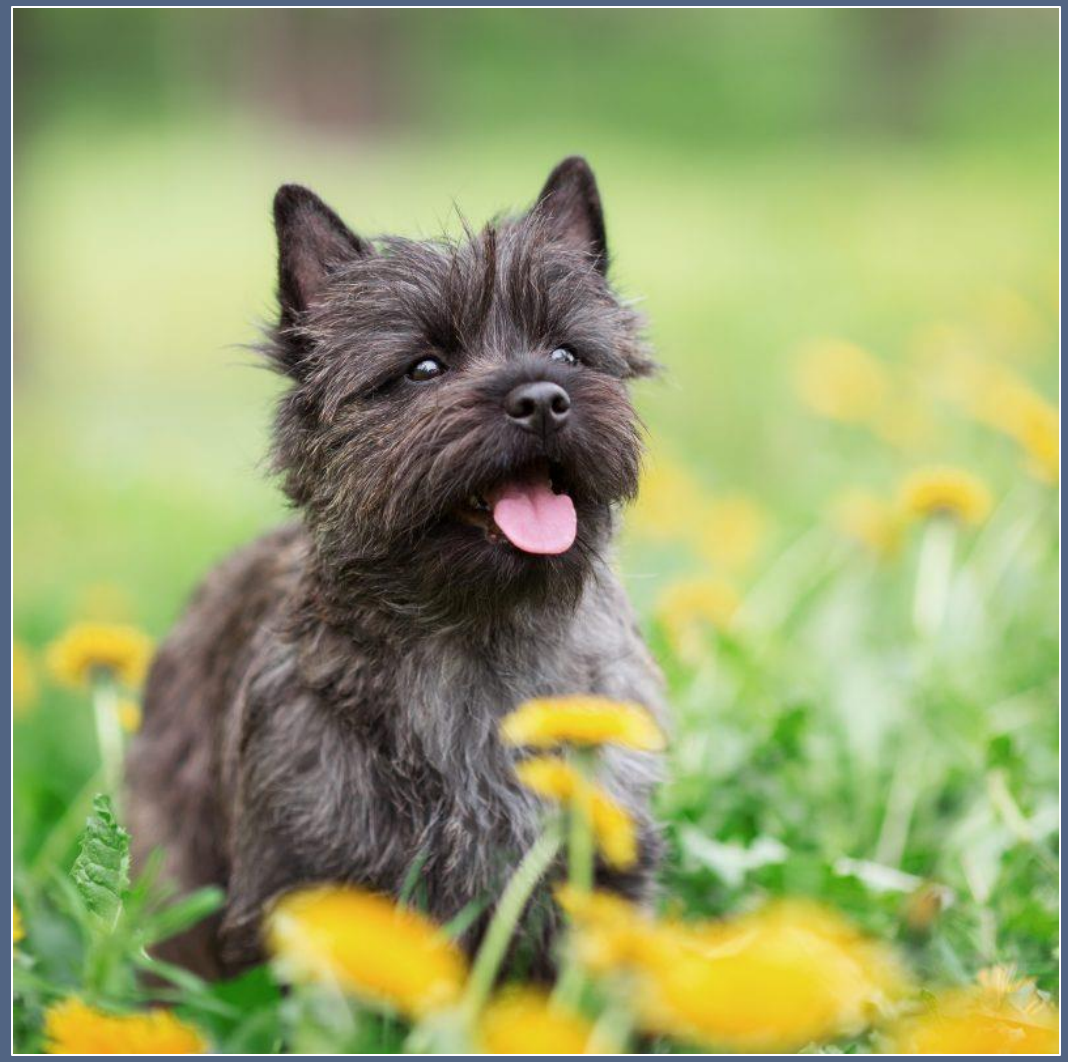
- Commonly leads to glaucoma and blindness
  - Prognosis for eyes and vision is guarded
- Patients with cysts should be closely monitored for uveitis and glaucoma!





Ocular melanosis

- Bilateral disease
  - But can be asymmetric
- Most commonly in Cairn Terriers
  - Inherited (unknown mode/gene)
  - Occasionally seen in other breeds
    - Labs again, Boxers
- Prevalence: ~10% of Cairns!
- Average age of onset: Middle aged

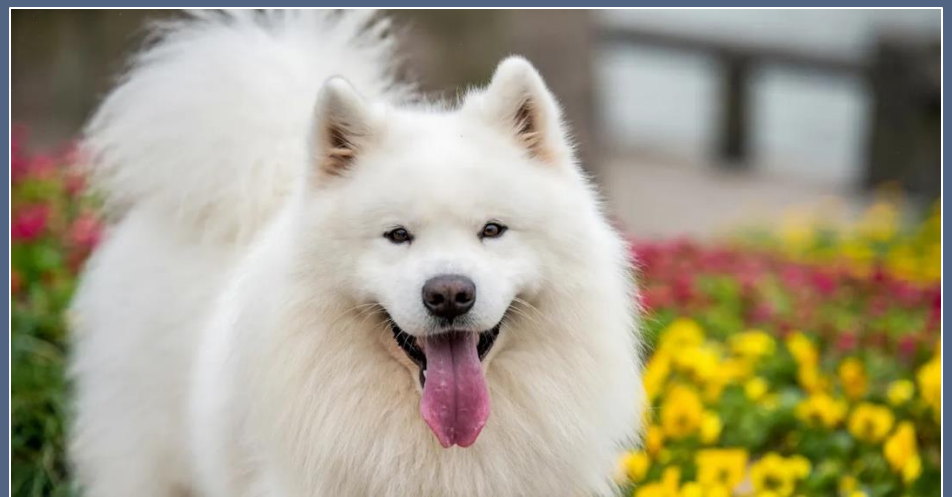


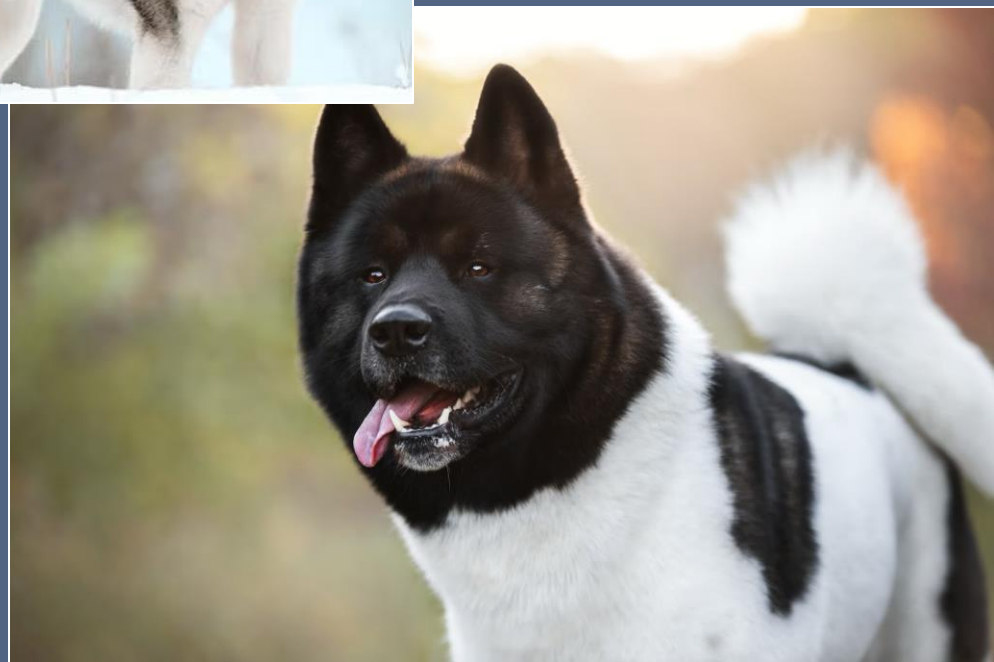
Ocular melanosis

- Results in increased pigmentation across many structures of the eye
  - Eye appears darkened: Iris, sclera, cornea
- Leads to uveitis
- Leads to glaucoma
- Prognosis for eye and vision is guarded

Uveodermatologic Syndrome

- Bilateral disease
  - But can be asymmetric
- Most commonly Arctic Breeds
  - Akitas, Huskies, Malamutes, Samoyed
- Age of onset: 6mo – 6 years
  - Varies but can be young!



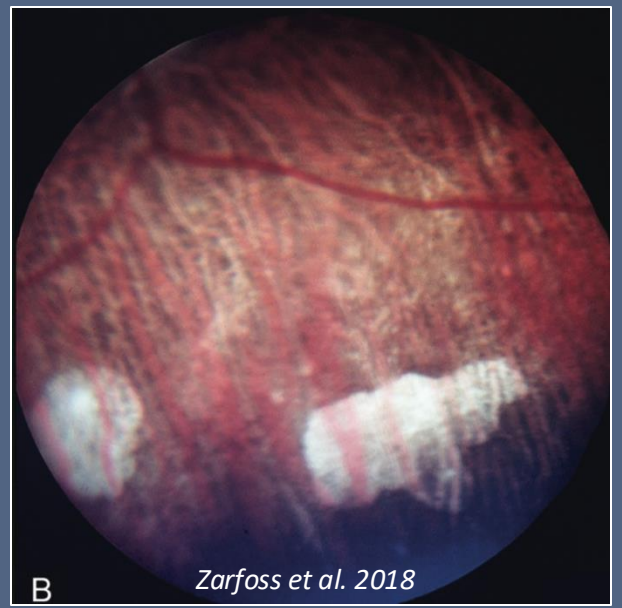


Uveodermatologic Syndrome

- Autoimmune disease in which pigmented cells are targets
  - Eyes and skin
- Skin lesions include inflammation, depigmentation +/- ulceration
  - Most commonly around the nose and eyelids
  - +/- Mouth, ears, paw pads

Uveodermatologic Syndrome

- Ocular lesions often precede skin lesions
- Ocular lesions include depigmentation of the fundus and uveitis
  - Can lead to retinal detachment
  - Often leads to glaucoma and blindness



Zarfoss et al. 2018


Thomas and Chahory 2009

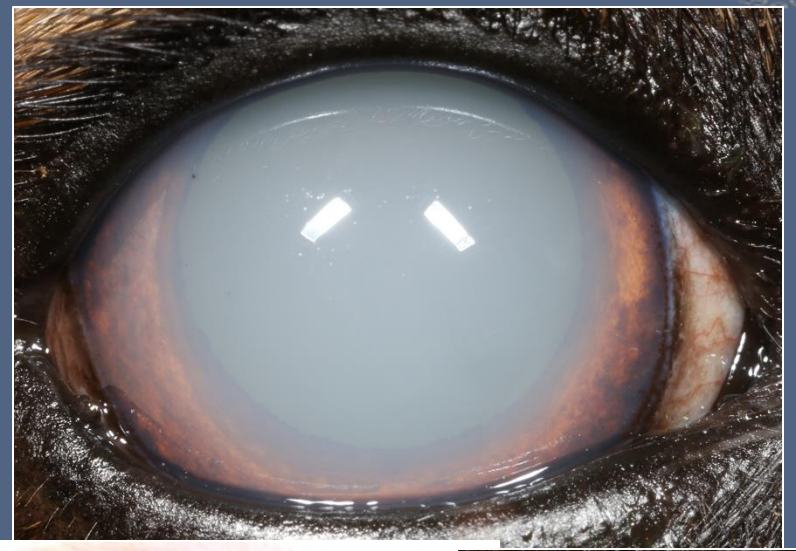
Tham et al. 2019

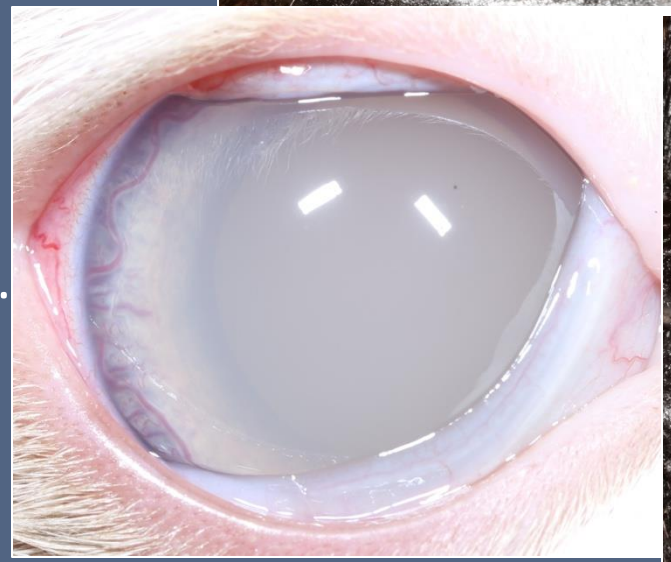
Uveodermatologic Syndrome

- Definitive diagnosis is via biopsy
  - Presumptive diagnosis can often be made via clinical signs, breed, etc.
- Can be difficult to control
  - Often requires systemic immunosuppression and topical therapy
  - Requires long-term management
- Prognosis for eye and vision guarded

Lipemic Uveitis

- Uveitis characterized by fatty infiltration of the aqueous humor
  - Milky appearance to aqueous
- 2 things have to be true:
  - 1. Hypertriglyceridemia
  - 2. Leaky uvea (uveitis)
- Patients should be assessed for hypertriglyceridemia and underlying causes
  - Primary idiopathic
  - Diet
  - Pancreatitis
  - Endocrinopathy: Hypothyroidism, Cushing's, etc.
- Can lead to secondary problems such as Glaucoma, but often do well

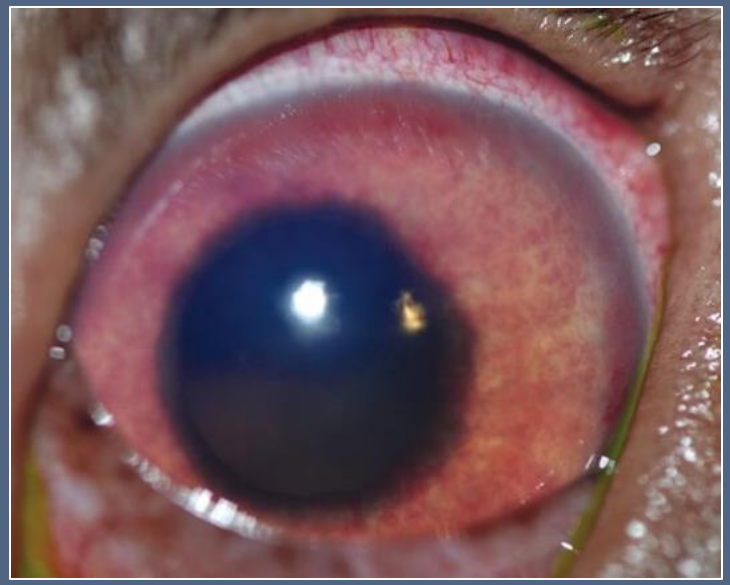


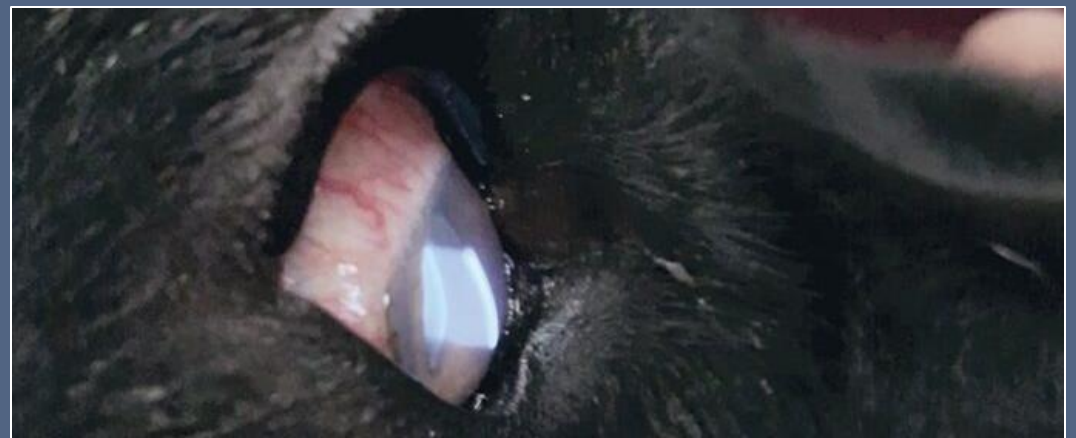


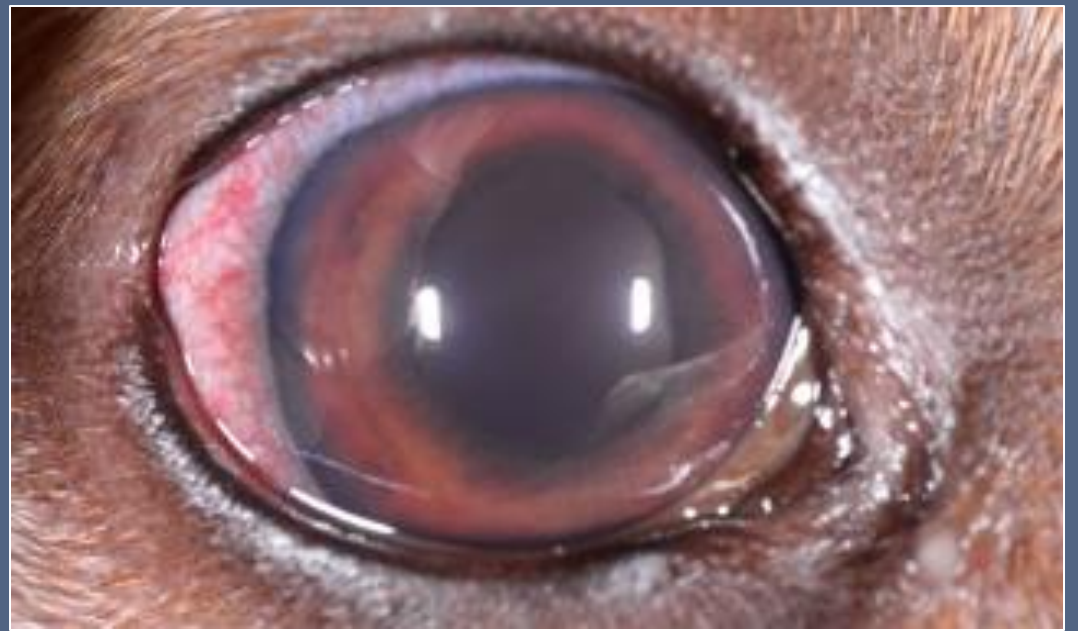
VEC OF NYC

Immune Mediated Uveitis

- Diagnosis by exclusion
  - If patient does not have systemic signs, has a normal systemic workup, and does not fit an ocular specific cause or type of uveitis
- Any breed
- Age of onset: Any age but most commonly middle-aged

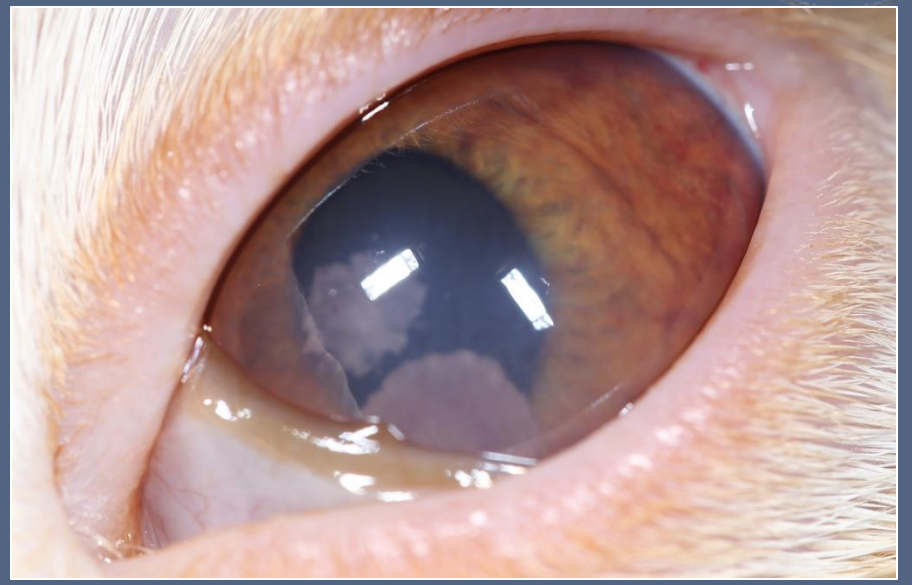


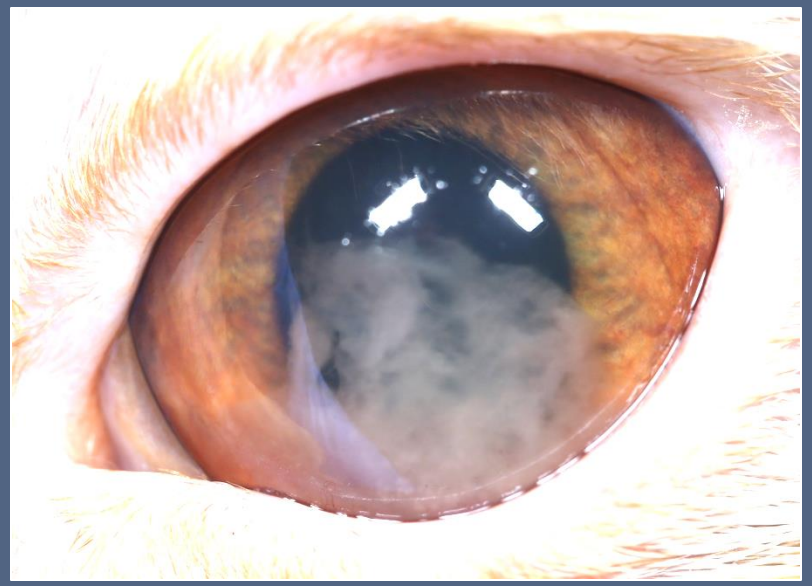


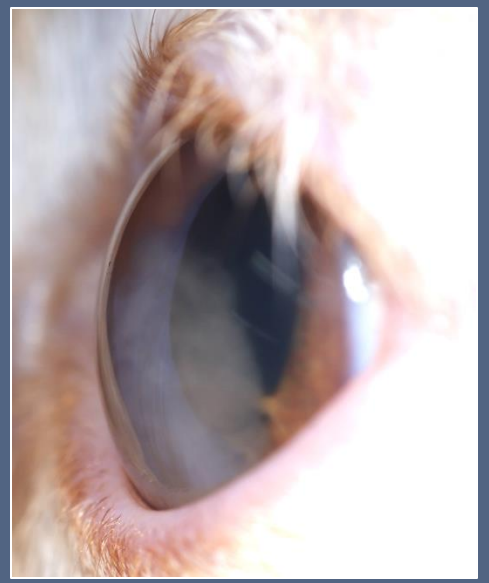


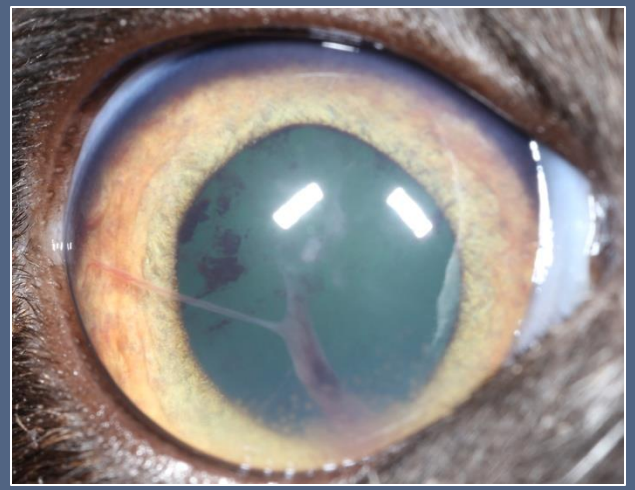
Feline Infectious Peritonitis Uveitis

- Uveitis more common with non-effusive form (but can occur with wet form too)
- Young cat with uveitis = Consider FIP
  - Fibrinous uveitis and large keratic precipitates are especially suspicious



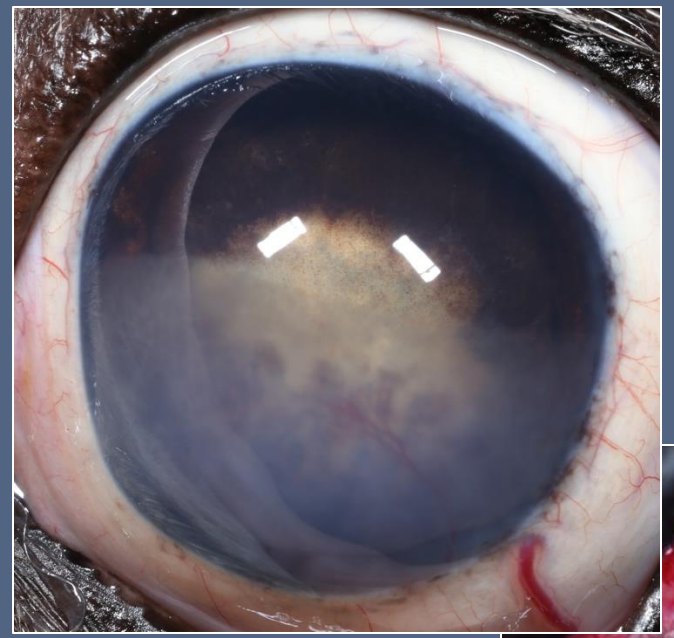


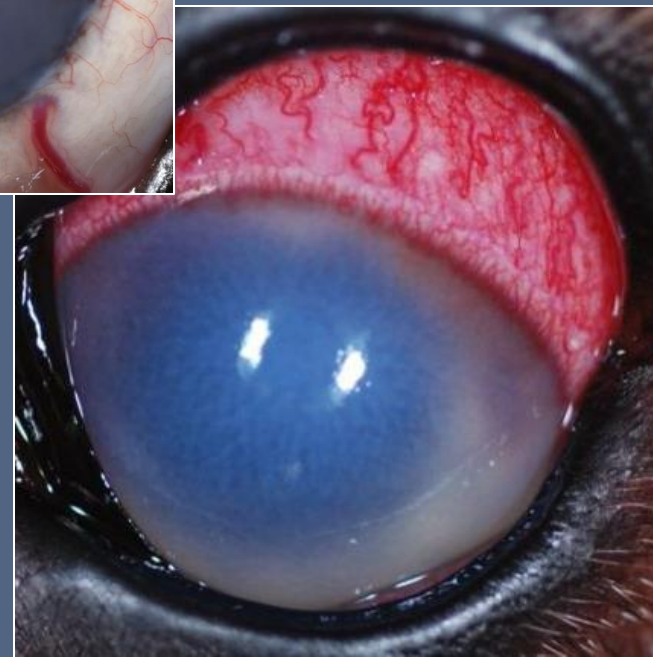




How emergent are uveitis cases?

- All cases warrant treatment immediately
  - Chronicity → Permanent changes in the eye and glaucoma
- The more severe the uveitis, the more emergent in general
- If systemic disease possible, determining the underlying cause important for overall health
- Uveitis can be painful, so immediate treatment is important for patient comfort





Uveitis Treatment

Underlying cause?

Find and treat the underlying cause

Anti-inflammatories

- Topical prednisolone acetate (> for intraocular than dex)
- Topical NSAID
- q6-12 to start depending on severity
- Consider oral NSAID or steroid *(Steroid needed for autoimmune conditions)*
- Refer for subconjunctival steroid injection?

Prevent Sequelae

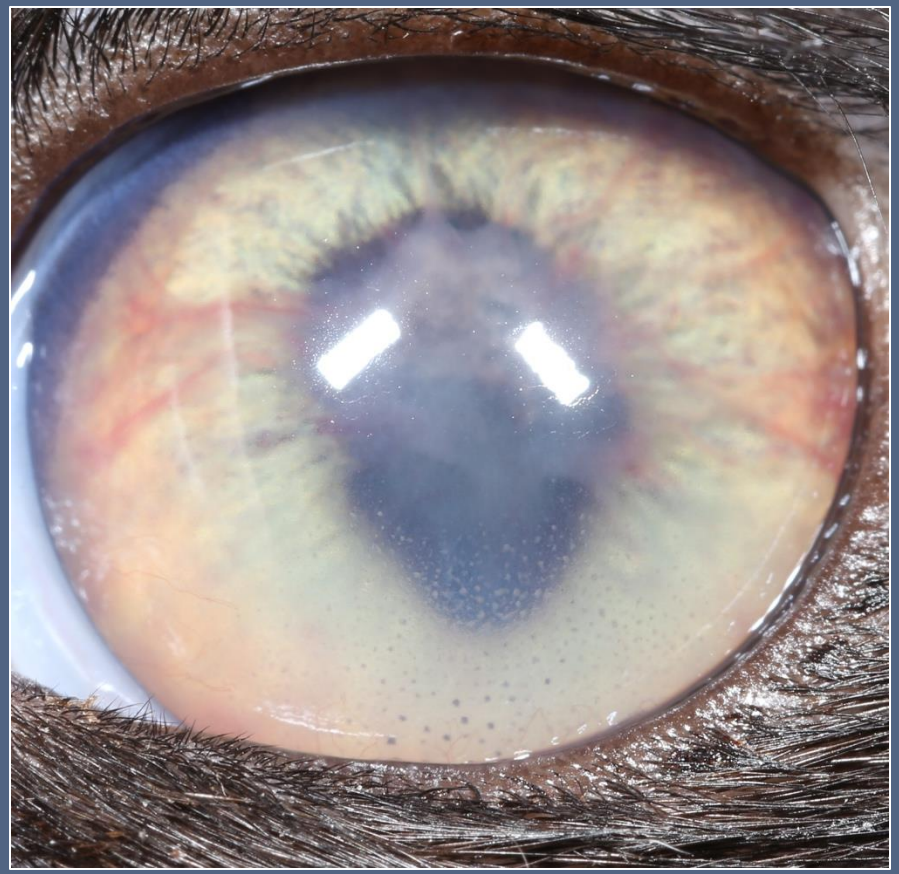
- Topical atropine solution
  - If no glaucoma
  - Consider lower frequency if KCS
  - q12-24

Pain Management

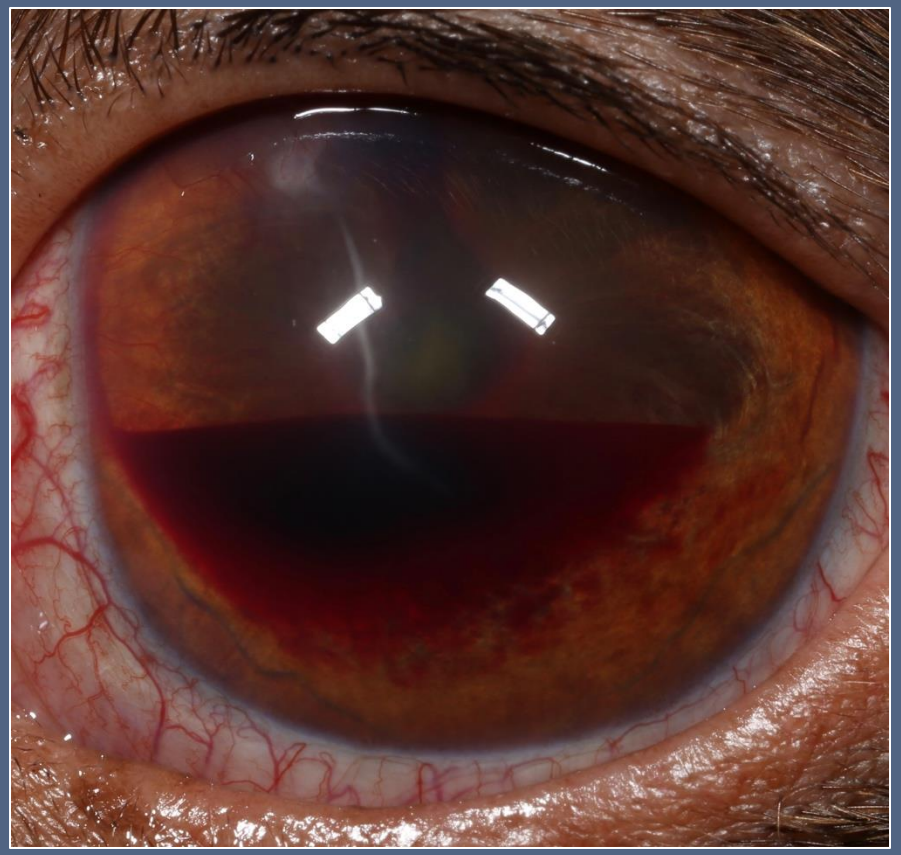
- Atropine
- Oral pain medications

(Topical NSAIDs do NOT provide analgesia)

Questions about uveitis?

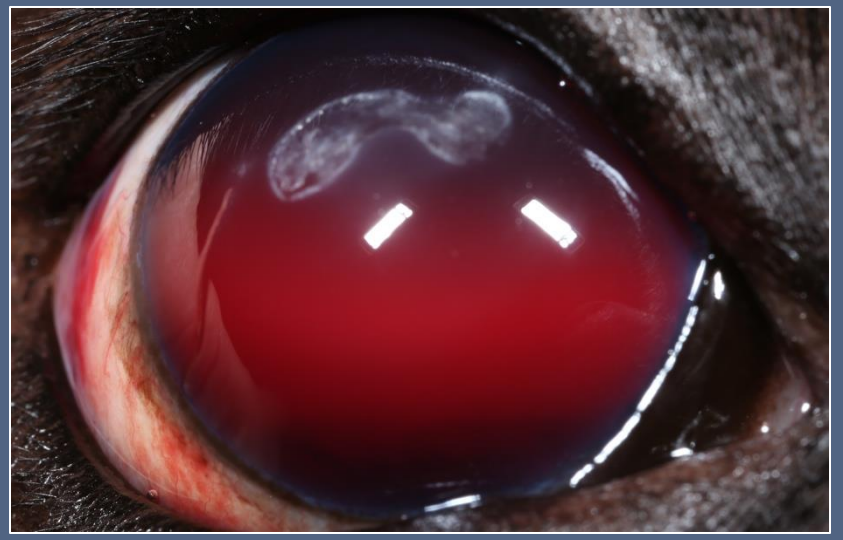


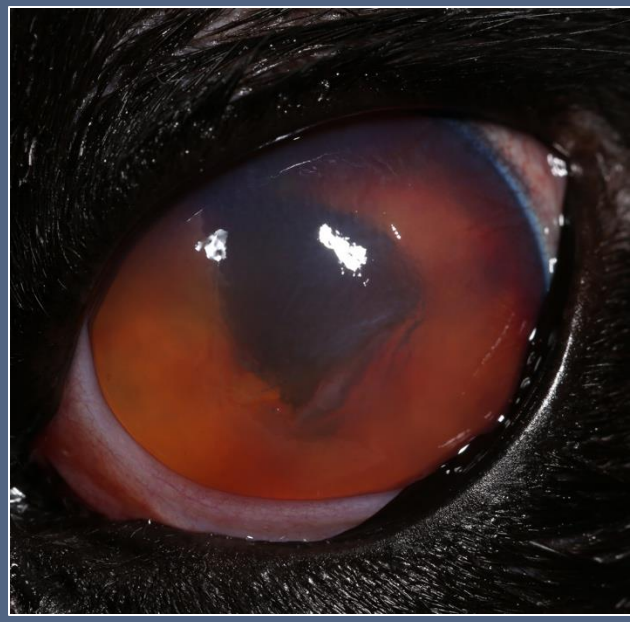
Hyphema



What is it?

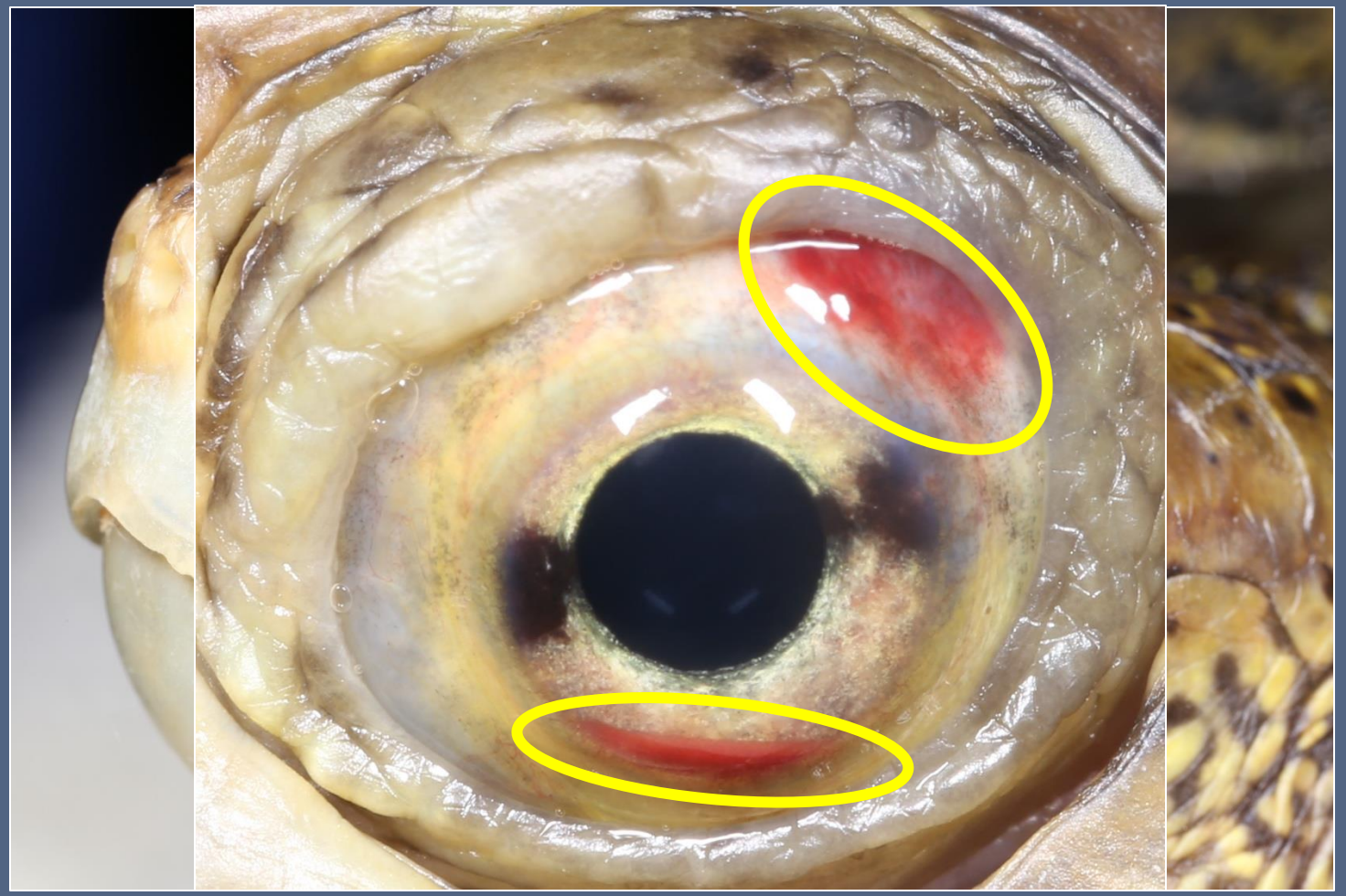
- Hemorrhage into the anterior chamber
- Can appear as the entire anterior chamber filled with blood
- May also appear hazy with a slight red hue when mixed with inflammatory protein
- Can clot
  - Tends to settle in the ventral anterior chamber
  - Can form clots stuck to other ocular structures like the iris or lens





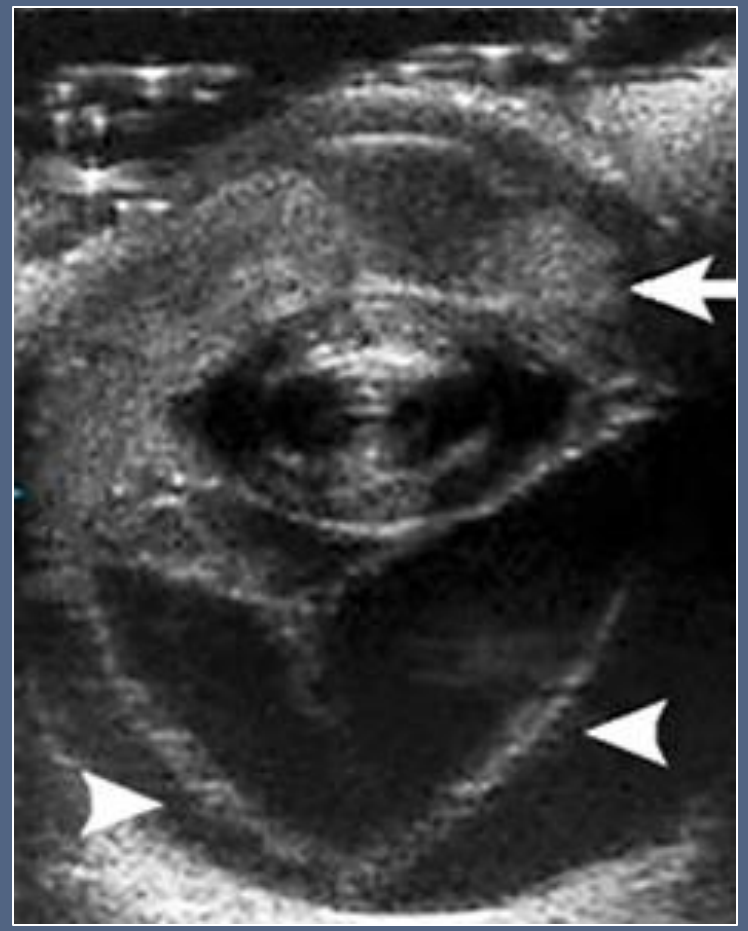
What can cause it?

- Trauma
- Retinal detachment
- Intraocular mass
- Uveitis
- Systemic hypertension
- Infectious disease
  - Especially tick borne
- Clotting disorders



What test(s) should I do?

- Ophthalmic Examination
  - IOP:
    - Low: Appropriate for inflammation
    - Monitor for glaucoma
  - Fluoresceine stain:
    - Safe for steroids?
- +/- Ocular ultrasound



What test(s) should I do?

- Systemic Examination
- Systemic diagnostics
  - Blood pressure, blood pressure, blood pressure!
  - CBC, chemistry, UA
  - Clotting times, consider Von Willebrand Disease testing
  - Infectious disease testing appropriate for the area

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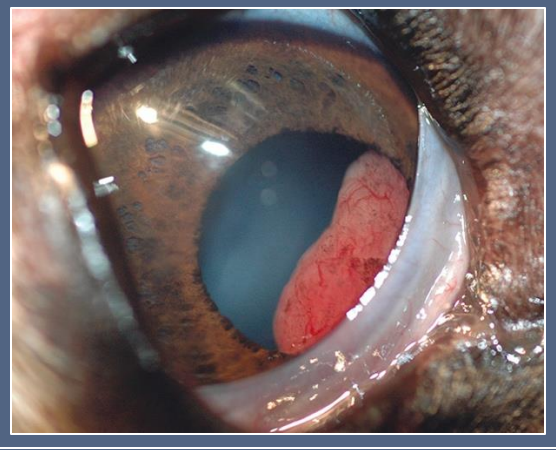
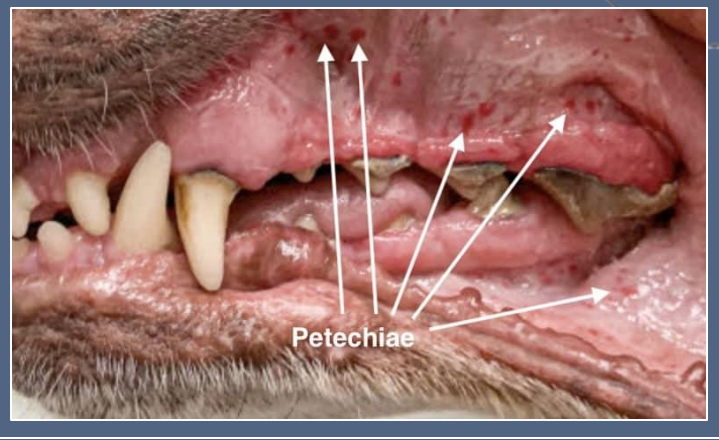


Is this related to systemic disease?



Primary Ocular

- Is there an ocular condition that can explain it?
  - Intraocular mass?
  - Retinal detachment?
- Is the patient otherwise acting healthy?
- Systemic workup WNL?

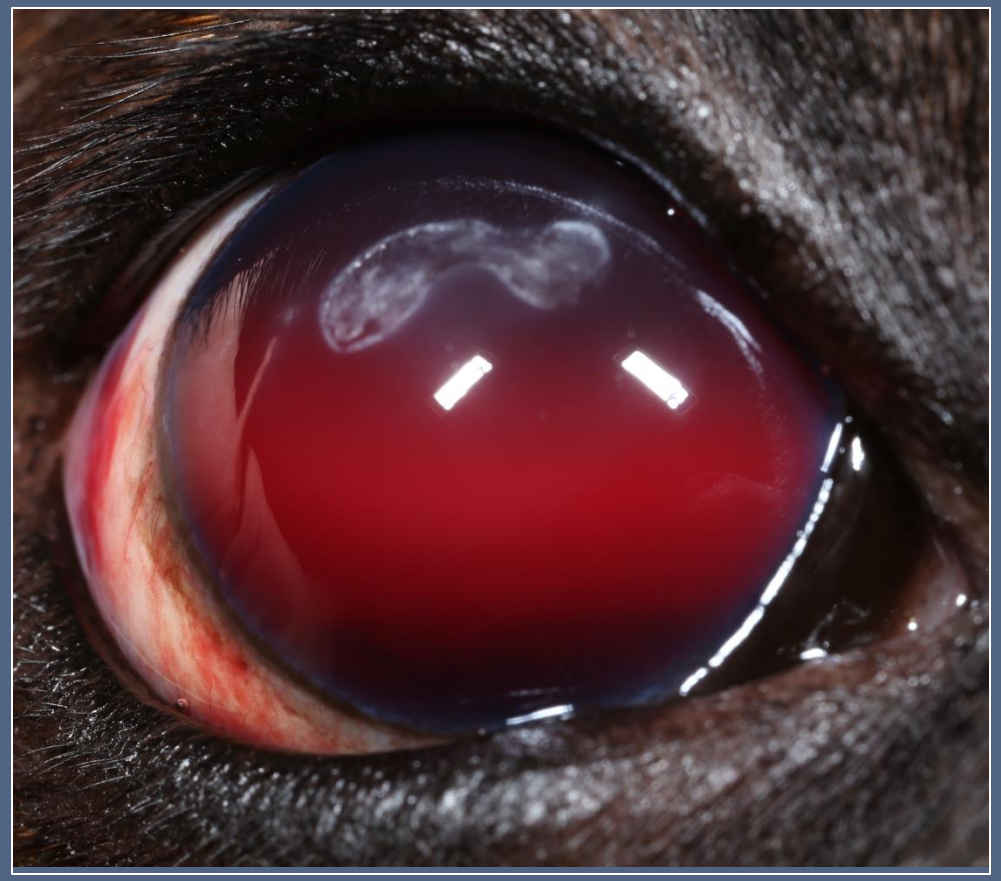
Systemic

- Is the patient acting otherwise sick?
- Workup abnormalities?
- Petechiae? Bruising?
- Hypertensive?
- Ocular causes ruled out?

Not sure or worried? Call or email us!
We are always happy to help!

How emergent are uveitis cases?

- All cases warrant treatment immediately
- May indicate life-threatening clotting abnormality, severe hypertension, or other serious systemic disease
- Chronicity → Permanent changes in the eye and glaucoma
  - High risk of glaucoma and pain
- The more severe the hyphema, the more emergent in general



Hyphema Treatment

Underlying cause?

Find and treat the underlying cause

Anti-inflammatories

- Topical prednisolone acetate (better for intraocular than dex)
- q6-12 to start depending on severity

Prevent Sequelae

- Topical atropine solution
  - If no glaucoma
  - Consider lower frequency if KCS
  - q12-24
- +/- Refer for TPA (tissue plasminogen activator) anterior chamber injection if concerning clot

Pain Management

- Atropine
- Oral pain medications (careful with NSAIDs)

(Topical NSAIDs do NOT provide analgesia)

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Thank you for your attention!
Additional questions?

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