



Ophthalmology

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Chief Complaint

- “Blackie”
- 9 year old spayed female Cocker Spaniel
- Cloudy left eye - first noticed today
- Eye seems to be swollen

Blackie



History

- Bright, alert, responsive
- Today the owner noticed the left eye was cloudy
- The globe of the left eye seemed to be larger than the right eye
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Physical Examination

- Overweight
- Temperature 38.0 degrees C
- Heart Rate 100 bpm
- Left eye – Buphthalmos
- Episcleral injection
- Dilated and fixed pupil
- Cornea – cloudy pale blue color
- Bilateral otitis externa

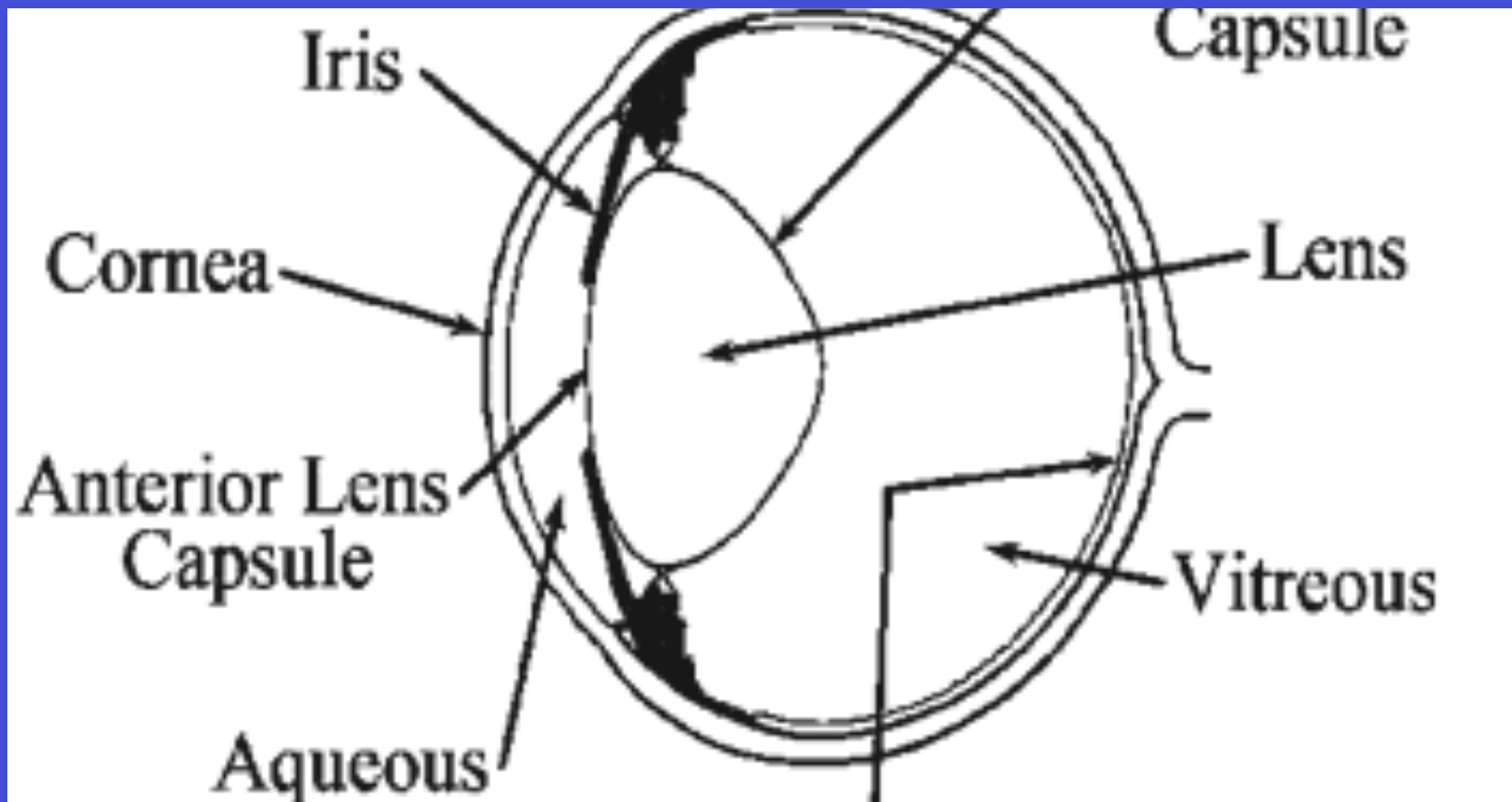
Buphthalmos and Red Eye



Left Eye



The Eye



Rule Outs

- This is your Rule Out List
- List of all the possible diagnoses

Rule Outs

- Corneal Ulcer
- Keratoconjunctivitis Sicca (KCS)
- Anterior Uveitis
- Glaucoma
- Eye Trauma
- Nodular Episcleritis

Plan

- Make a Plan – Diagnostic Tests
- List the Diagnostic Tests

Ophthalmic Tests (for every eye examination)

- Fluorocein Stain + for corneal ulcer
- Schmirmer Tear Test (STT) - should be more than 15 mm in 1 minute
- Intraocular Pressure (IOP) normal is 15 -25 mm/Hg

Results of Tests

- Fluorescein Stain – green stain if positive for corneal ulcer
- KCS – if lower than 10 mm – positive for KCS
- IOP – if below 10 mm/hg positive for Anterior Uveitis. If above 25 positive for Glaucoma.

Plan

- Fluorescein Stain – cornea
- STT – Schmirer Tear test
- IOP – Intra Ocular Pressure test
- Fundic examination of the retina
- Pupillary Light Reflex

Schiotz Tenometer (measures IOP)



Using the Schiøtz Tenometer Correctly



Schirmer Tear Test



Fluorescein Stain



Positive Fluorescein Stain indicating a corneal ulcer – but it was negative in our dog



Results of our dog's tests

- Fluorescein Stain – cornea – negative
- STT – 15mm in one minute - normal (12-15 mm)
- IOP – 45 mm/Hg (15-25) very high
- Fundic examination – unable to see the retina
- Pupillary Light Reflex –
 - left eye pupil is dilated and non response to light
 - right eye is normal

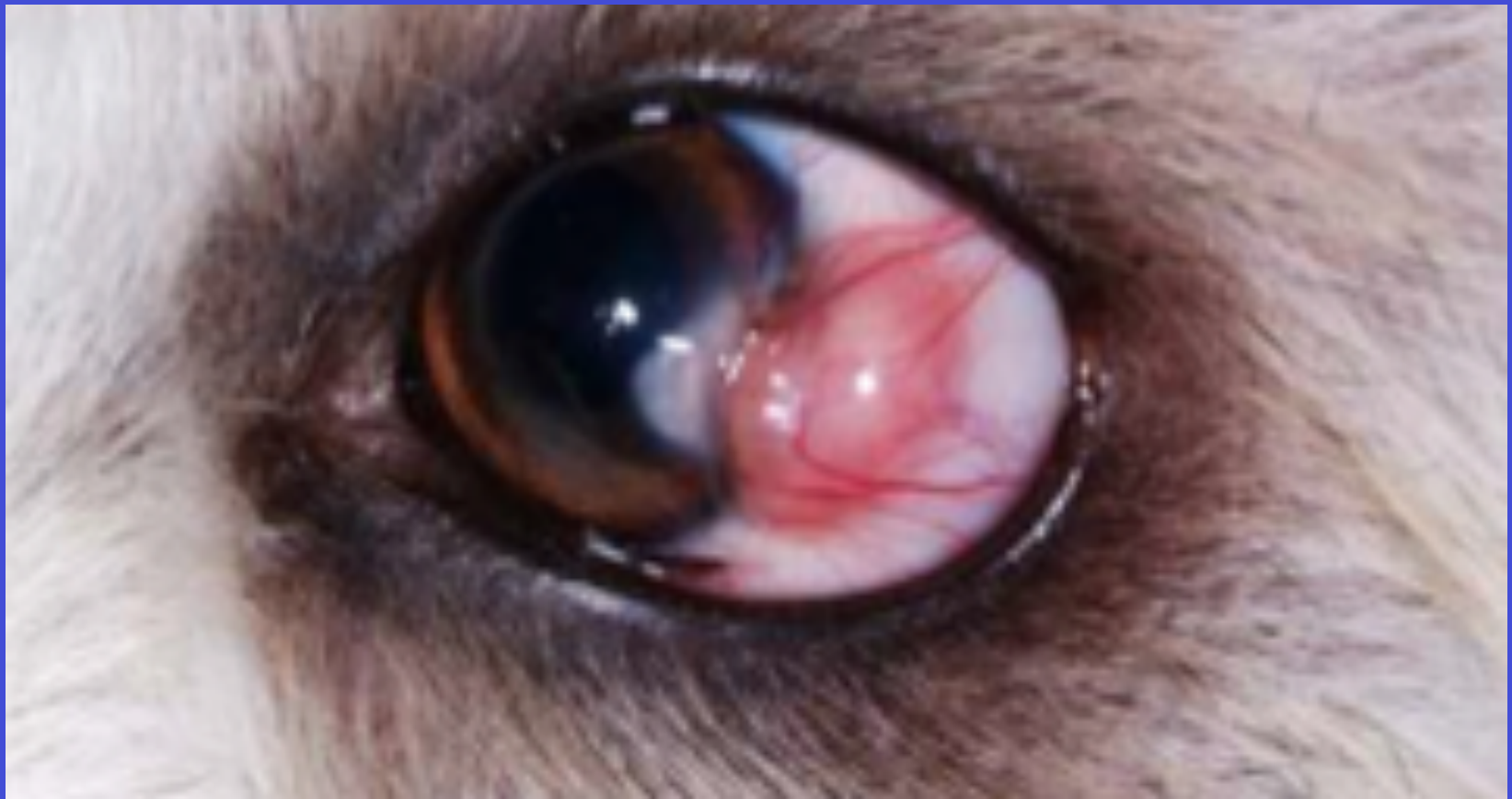
Diagnosis?

- Consider each rule out and label as likely or unlikely. Give reasons for your answer.

Diagnosis

- Corneal Ulcer – unlikely negative fluorescein stain
- KCS –unlikely normal tear production
- Anterior Uveitis – IOP is high not low as in uveitis
- Glaucoma – very likely, high IOP
- Eye Trauma – possible cause of glaucoma
- Nodular Episcleritis – unlikely lacks scleral nodules – see next slide

Nodular Episcleritis



Final Diagnosis?

- Glaucoma

What is your Treatment Plan?

- What is your treatment Plan?

Treatment Plan

- Drugs to lower the IOP
 - First try – prostaglandin miotic eye drops – Xalatan
 - Hyperosmotic agents – Mannitol

Contraindicated Drugs?

- Are there any drugs that should not be used and therefore are contraindicated?

Contraindicated Drugs

- Do not use topical Atropine – increases IOP
- Do not use mannitol in dogs with heart/lung disease

What is the Prognosis?

- What will you tell the owner after you make a diagnosis of Glaucoma?

Prognosis

- More than 50 % develop glaucoma in the other eye with out prophylactic therapy
- Most cases of glaucoma will result in
- Permanent blindness within 1-2 years.
- Prognosis is guarded to poor



The End































