



Ophthalmology

Dr. Ed Neufeld B.A. M.Div. D.V.M.

Chief Complaint

- “Rusty ”
- 5 year old spayed female Beagle
- Slightly cloudy right eye - first noticed yesterday
- Sclera is inflamed and red
- Rusty is constantly rubbing her right eye

Rusty



History

- Bright, alert, responsive
- Yesterday the owner noticed the right eye was slightly cloudy.
- The eye (sclera) is red and inflamed
- Rubbing the right eye

Physical Examination

- Temperature 38.0 degrees C
- Heart Rate 100 bpm
- Episcleral injection right eye
- Pupil - constricted
- Cornea – slightly cloudy with some vascularization
- Blepharospasm, Photophobia
- Conjunctival hyperemia (inflammation)

Right Eye



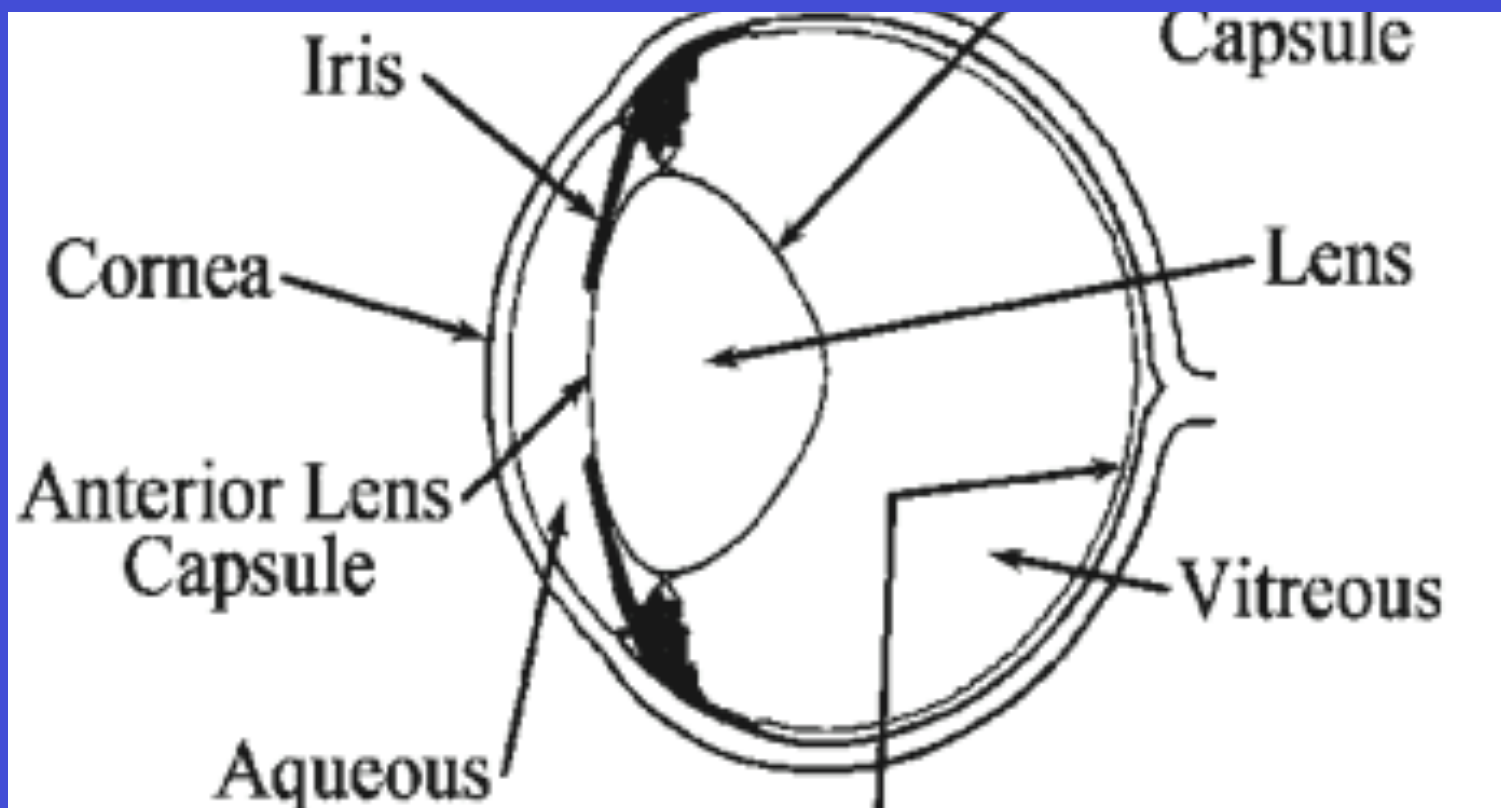
Rule Outs

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

Rule Outs

- Corneal Ulcer
- Keratoconjunctivitis Sicca (KCS)
- Anterior Uveitis
- Glaucoma
- Eye Trauma
- Bacterial conjunctivitis
- Lens Luxation

The eye



Plan

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

Plan

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

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

Schiotz Tenometer (measures IOP)



Using the Schiøtz Tenometer Correctly



Schirmer Tear Test

RESULT INTERPRETATION



15-25mm = Normal range



10-14mm = Suspect low tears



<10mm = Inadequate tears

Schirmer Tear Test



Fluorescein Stain



Fluorescein Stain Test – positive in this picture
but negative in our dog



Keratoconjunctivitis Sicca



Keratoconjunctivitis Sicca



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.

Results of the our dog's tests

- Fluorescein Stain – cornea – negative
- STT – 15 mm right eye and 12 mm in left eye normal (10-15 mm)
- No abnormal amount of mucous in the eye
- IOP – 10 mm/Hg (15-25)
- Fundic examination – no abnormal findings
- Pupillary Light Reflex – pupils constricted

Diagnosis?

- Consider each rule out/possible diagnosis and explain why it could or could not be the final diagnosis.

Diagnosis?

- Corneal Ulcer – unlikely negative fluorescein stain
- KCS –unlikely normal STT, negative for mucous
- **Anterior Uveitis** – likely IOP is low
- Glaucoma – unlikely requires high IOP
- Eye Trauma – unlikely no history of trauma
- **Bacterial conjunctivitis** - possible

Final Diagnosis?

- *Anterior Uveitis* with possible bacterial conjunctivitis

What are the possible causes of Anterior Uveitis

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Causes of Anterior Uveitis

- Infectious – mycotic, bacterial, protozoal
- Immune Mediated
- Neoplastic
- Metabolic – hyperlipidemia
- Idiopathic

What is your Treatment Plan?

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Treatment Plan

- Topical steroid ophthalmic drops
- Systemic steroids – if infectious causes of anterior uveitis have been ruled out
- Atropine – to dilate the pupil which relieves ocular pain
- Perhaps add an eye antibiotic in case the cause of the anterior uveitis is bacterial

Complication of Anterior Uveitis

- What is the most common complication to Anterior Uveitis?

Complication of Anterior Uveitis

- Anterior Uveitis can induce Glaucoma
- Recommend to do a IOP test in 3-7 days to test for Glaucoma.
- If the IOP increases during the treatment of Anterior Uveitis which drug should be discontinued ?

Contraindicated Drugs?

- Are there any drugs that should be discontinued if the IOP increases while treating Anterior Uveitis?
- Atropine – causes an increase in IOP

What is the Prognosis?

- What will you tell the owner as to the prognosis?

Prognosis

- Usually the prognosis is good
- Depends on the cause of the Anterior Uveitis - immune mediated or idiopathic – good prognosis
- If it infectious – mycotic, Ehrlichia canis – prognosis is guarded
- If it is neoplastic – prognosis is guarded to poor



The End



















