



# Canine Uveitis

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Vision Vet

[www.vision-vet.co.uk](http://www.vision-vet.co.uk)

# Definition

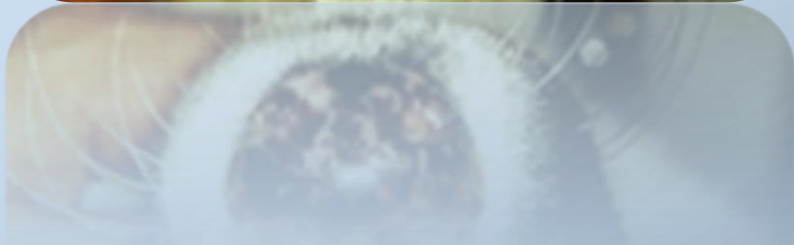
- Inflammation of the anterior uveal tissue i.e. iritis (iris), cyclitis (ciliary body) or Iridocyclitis.
- May be associated with posterior uveal and retinal inflammation.
- Can be unilateral or bilateral.

# Pathophysiology

- **Increased permeability of blood-aqueous barrier** due to infectious, immune-mediated, traumatic or other causes
- **Disruption of BAB** due to chemical mediators (histamine, prostaglandin, leukotrienes, serotonin, kinins and complement)

# Breed related

- None for most cases.
- Pigmentary uveitis in Golden Retriever.
- Uveodermatologic syndrome in Siberian Husky, Akita, Samoyed and Shetland sheepdog.



# Clinical Examination

## Acute Signs

- Pain
- Increased lacrimation
- Conjunctival hyperemia
- Episcleral congestion
- Corneal edema
- Keratic precipitates
- Aqueous flare

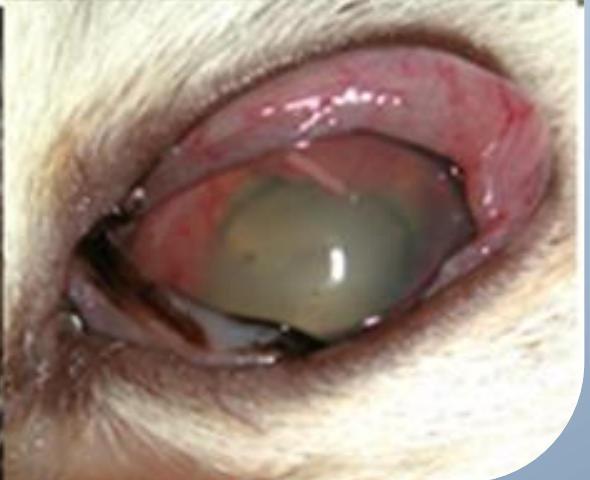
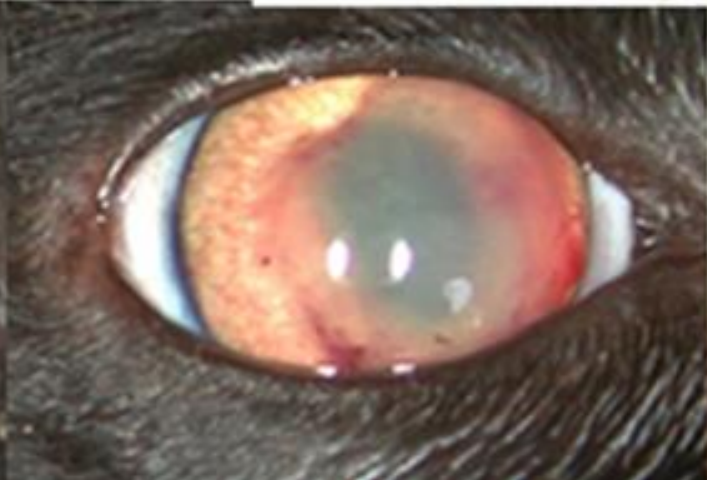
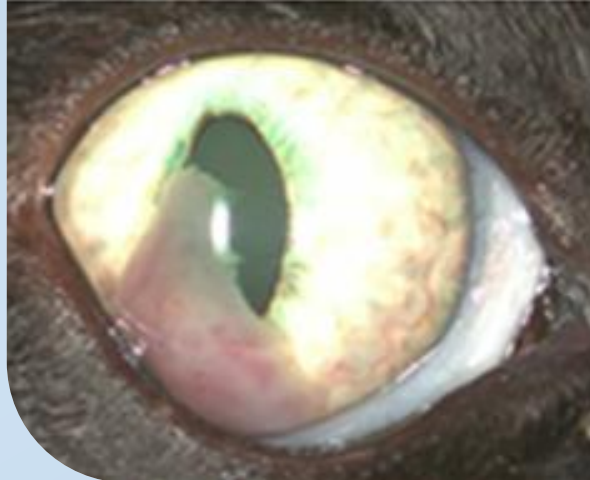
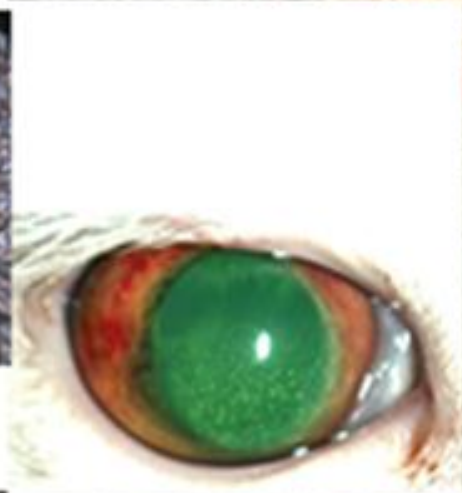
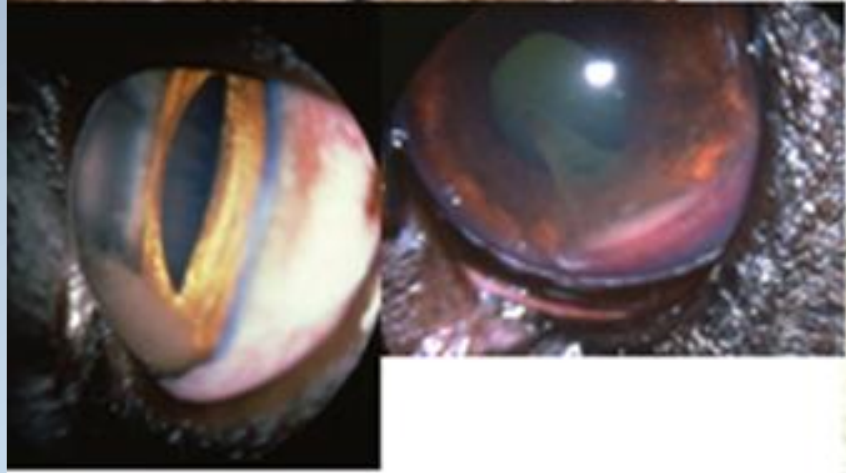
## Acute signs

- Hypopyon
- Hyphema
- Miosis
- Swollen iris
- Photophobia
- Visual impairment
- Posterior segment changes
- Lower IOP 6-10mmHg

# Clinical Examination

## Chronic signs and complications

- Severe ongoing pain
- Endophthalmitis
- Iris darkening
- Iris bombe
- Cataract
- Lens luxation
- Blindness
- Retinal detachment
- Glaucoma
- Phthisis bulbi
- Posterior synechiae





# Case Work Up

- Take a detailed history and travel history
- Full ophthalmic examination
- Full physical examination
- If the cause has been identified during ophthalmic examination, then further investigation might not be required i.e. history of trauma to the eye
- If the cornea or anterior segment is too opaque to allow visualization, then ultrasonography should be considered
- If systemic cause is likely, then I would recommend routine blood i.e. hematology and full biochemistry
- We may opt for further tests if a cause has been suspected such as serology, clotting disorder, fecal analysis, imaging ( radiograph, ultrasound, CT or MRI scan), blood culture and ocular centesis

# Cause Of Uveitis

- **Infectious cause:**

- **Bacteria:**

- Lyme disease (borreliosis)
- Leptospirosis
- Any septicaemia i.e. pyometra
- Brucellosis

- **Parasitic:**

- Toxoplasmosis
- Leishmaniasis
- Ehrlichiosis
- Rickettsial
- Migrating larvae

# Cause Of Uveitis

- **Viral:**

- Adenovirus (canine hepatitis)
- Distemper
- Rabies

- **Algal:**

- Protothecosis

- **Fungal:**

- Blastomycoses
- Coccidioides
- Cryptococcus
- Histoplasmosis

# Cause Of Uveitis

- **Non-infectious causes:**

- **Immune mediated:**

- Lens-induced uveitis i.e. due to cataract or lens trauma
- Uveodermatological syndrome
- Coagulopathies e.g. thrombocytopenia

- **Metabolic:**

- Diabetes mellitus (especially if cataract)
- Hyperlipidemia - primary or secondary

- **Drug induced:**

- Excessive miotic use

- **Idiopathic** - if all diagnostics are negative

# Cause Of Uveitis

- **Trauma:**

- Blunt
- Penetrating

- **Secondary to ulceration:**

- Reflex uveitis

- **Neoplastic:**

- Primary e.g. ciliary body adenoma, melanoma
- Secondary e.g. lymphoma, myeloma, mammary carcinoma

# Treatment - Medical

- Prompt therapy is indicated
- Combination of therapies, topical and systemic, is normally required and treatment will be divided into specific elimination of the cause, together with symptomatic therapy.
- **Antibiotic:**
  - Clindamycin for toxoplasmosis
  - Tetracyclines for ehrlichiosis
  - Cefalexin – broad-spectrum antibiotic with good ocular absorption if the cause is uncertain.

# Treatment - Medical

- **Topical steroid (contraindicated with corneal ulceration):**
  - Prednisolone acetate 1% - apply 2-8 times daily
  - Dexamethasone 0.1% - apply 2-8 times daily
  - Depending on the severity of the disease; taper medication as the condition resolves over several weeks.
- **Systemic steroid:**
  - Prednisolone 0.5-2 mg/kg/day initially; taper dose after 7-10 days.
  - Use ONLY if systemic infectious causes of uveitis have been ruled out.
  - Avoid in dogs with systemic hypertension.

# Treatment - Medical

- **Topical NSAID (contraindicated with corneal ulceration):**
  - Ketorolac trometamol 0.5% - apply 2-4 drops daily.
- **Systemic NSAID:**
  - Meloxicam
  - Carprofen



# Treatment - Medical

- **Topical mydriatic/cycloplegic:**

The function of Atropine:

1. Decreases the possibility of posterior synechiae by dilating the pupil.
2. Cycloplegia greatly lessens the pain associated with ciliary spasms.
3. Decreases the permeability of ocular blood vessels to proteins thereby stabilizing the BAB.

# Treatment - Medical

- **Topical mydriatic/cycloplegic:**
  - Atropine Sulfate 1% - apply 1-4 times daily, depending on the severity of the disease.
  - Use the lowest frequency adequate to maintain dilated pupil and ocular comfort.
  - Taper medication as the condition resolves.
  - **Care should be exercised if primary or secondary glaucoma is a risk.**
  - **Atropine will lower tear production, so its use must be cautious in patients with low STT.**
  - Atropine can last a long time in non-inflamed eyes.

# Prognosis

- Extremely variable pending on the cause
- Chronic sequelae of uveitis include:
  - Posterior Synechiae
  - Cataract
  - Secondary glaucoma
  - Phthisis bulbi
  - All of which can be blinding and may require enucleation



# Telemedicine Ophthalmology Service

- We offer FULL OPHTHALMOLOGY TELEMEDICINE SERVICE with virtual video consultations.
- Working together with vets we aim to provide a **treatment plan** to manage your cases remotely.
- Keep your case **in-house**.
- **Reduce waiting time** for seeing an ophthalmologist.



# Telemedicine Ophthalmology Service

- Guiding vets who need help with eye cases.
- Save patients' eyes and **improve their quality of life.**



# Services We Provide



Vet to vet services



Ophthalmology  
Telemedicine Report



Ophthalmology  
Telemedicine Consult

# How To Refer A Case

- Go to
- [www.vetonline.co.uk/ophthalmology-telemedicine-get-started](http://www.vetonline.co.uk/ophthalmology-telemedicine-get-started)
- Fill out the referral form
- I will contact you back to arrange a telemedicine consult





