Infectious Feline Conjunctivitis

Pathology of conjunctiva

- +/- corneal inflammation
- +/- inflammation of all areas of the conjunctiva

Feline Infectious Conjunctivitis

- 4 main causes of infectious conjunctivitis in cats
- Herpes virus (FHV-1)
- Calicivirus
- Chlamydomphila
- Mycoplasma
- Bartonella

*NB: Only Herpes causes corneal ulceration with associated conjunctivitis*

Herpes Virus Keratitis (FHV-1)

- FHV-1 is frustrating
- Good client education is essential
- Analogy to human herpes
- No cure
• High % of carrier
• Fluctuating clinical signs

FHV-1 Epidemiology/Pathogenesis

• Very high % cats exposed to FHV-1
• Up to 80% are latently infected
• Stress reactivates condition
• Epitheliotrophic
• Direct cytopathic effect

FHV-1 Clinical Signs

• Conjunctivitis
• Keratitis
• Ulceration
• Serous then mucoid ocular discharge
• Associated non ocular clinical signs
• Sneezing, nasal discharge

FHV-1 Diagnosis

• History
• Clinical Sx, dye retention
• Conjunctival cytology, IFA, virus isolation – overall are poor
• PCR best method so far, still not great

N.B A linear dendritic fluorescein positive area is pathognomonic for herpes
FHV-1 Treatment

- Good client education
- Self-limiting disease
- Conjunctivitis cases will often start off with antivirals and topical tetracyclines
- Be aware of other concurrent systemic diseases. E.g. FIV, toxo, FeLV, FIP

FHV-1 Treatment – Antivirals and other drugs

- **Antivirals**
  - Antivirals are virostatic
  - Acute ulceration
  - Few available topical
  - Idoxuridine
  - Topical iodine 1:50 solution (not scrub)

- **Other Drugs**
  - L-lysine 250mg/ day
  - Famcyclovir
  - Interferon 25 units/ day
Skin Problems and Eyes

- An unusual variation of herpes

Chlamydia Psittaci Conjunctivitis

- Zoonotic
- Mainly affects conjunctiva
- Serous then purulent discharge
- Unilateral then bilateral
- Cytoplasmic inclusions = diagnostic
- Topically
- Tetracycline/ chloramphenicol
- Sometimes systemics are needed
- Azithromycin

Mycoplasma Conjunctivitis

- Probably needs to act with other pathogens
- Conjunctivitis + follicles
- Pseudomembranes with thick white exudate
- Cytology = basophilic inclusions in epithelial cell membrane
- Treatment as for chlamydia

Feline Keratitis

- Few adnexal diseases
- Reasonable number of traumatic incidents – cat fights
- Carefully examine corneal injuries – why?
- Lens capsule rupture = ongoing uveitis
Intraocular sarcomas

N.B. In cases of ulceration I see, FHV-1 keratitis represents the most common cause

Corneal Sequestration

- Unique to the cat
- Oriental and brachycephalic breeds mainly
- Cause = ?
- Chronic irritation, herpes link

Corneal Sequestration

- Clinical signs typical
- Necrotic cornea with black pigmentation
- Variable depth in cornea
Corneal Sequestration – Treatment

- Medical – v – surgical
- Problems with medical treatment
- Ongoing pain
- Possible rupture of eye
- Often significant scarring to block vision

*N.B. As a result of these problems, I recommend surgery for sequestrate in cats*

Corneal Sequestration – Treatment

- Surgical treatment I believe is best
- Occasional recurrences in the past
- Keratectomy, conjunctival graft, transplant
- Corneocconjunctival transposition
- Excellent prognosis

Corneoconjunctival Transposition

*BEFORE SURGERY*  *AFTER SURGERY*

Feline Uveitis

- What is the uveal tract?
- What is the role of the uvea?
- What is the anterior uveitis?
N.B Choroidal blood flow is higher per gram of tissue than any other tissue in the body

Feline Uveitis Aetiology

- Trauma – blunt/penetrating
- Infectious – FIV, FeLV, toxoplasmosis, FIP
- Neoplastic – primary/metastatic
- Lens induced – cataract/lens luxation

Clinical Signs of Feline Uveitis

- Conjunctivitis
- Corneal oedema (blueness, redness, endothelial precipitates)
- Anterior chamber (hypopyon, low pressure)

Corneal Endothelial Precipitates
Clinical Signs of Feline Uveitis

- Iris (adhesions, nodules)
- Lens Changes (cataracts)
- Retinal Abnormalities (detachments, haemorrhages, scars)

Diagnostic Tests for Feline Uveitis

- Complete blood count
- Biochemical analysis
- Urinalysis
- FIV, FeLV, paired toxoplasmosis titres

N.B Even in humans less than 50% of uveitis cases are diagnosed

Treatment for Feline Uveitis

- Correct underlying disease
- Symptomatic therapy
- Topical and systemic anti-inflammatories
- Dexamethasone, prednisolone
- Mydriatics?
- Atopine 1% ointment?
N.B. Beware of herpes ulcers in these cats that are immunosuppressed.

Complications of Feline Uveitis

- Glaucoma
- 50% eyes with uveitis and systemic Dx
- 28% eyes with uveitis only
- 70% incident with toxoplasmosis

N.B. Lens luxations and cataracts in cats are usually secondary to uveitis.
An Interesting complication of Uveitis in a cat

- 5 y/o DSH
- History – acute onset, mince last night, off feed previously
- Ocular exam – slight epiphora, slight pain, fluoro negative
- Other tests undertaken

After treatment for 24 hours...

- Topical steroids
- Low fat diet
- Assess cholesterol and lipid levels in blood stream
- Breakdown in blood aqueous barrier with lipid leakage

Iris freckles or early melanoma?

Treatment is available using diode laser, BUT when?
Sometimes it’s easier to tell:

Freckle or Melanoma?  Melanoma