Uvea and Uveitis
Uveitis Organisms

- Blastomycosis
- Cryptococcosis
- Coccidioidomycosis
- Histoplasmosis
- Protothecosis
- Aspergillosis
Blastomycosis
167 cases in dogs, 10 cases in cats

- *Blastomyces dermatitidis*
- Dogs more than cats
- 32 cases in Goldens 30 in Labs
- 98/167 less than 5 years old
- Only 10 older than 10 years old
- Mississippi River valley
- Very local hotbeds
- Soil fungus spread through inhalation from the soil
- Encapsulated with broad-based budding
Blastomycosis
Uveitis Organisms

- Blastomycosis
- Cryptococcosis
- Coccidioidomycosis
- Histoplasmosis
- Protothecosis
- Aspergillosis
Cryptococcosis
11 cases in dogs, 27 cases in cats

• *Cryptococcus neoformans*
• Spread from soil rich with pigeon droppings
• Ohio River valley
• Cats more than dogs
• 7 to 10 micron poorly staining cell body surrounded by mucinous capsule
Cryptococcosis

Alcian Blue PAS
Alcian Blue PAS
Uveitis Organisms

• Blastomycosis
• Cryptococcosis
• Coccidioidomycosis
• Histoplasmosis
• Protothecosis
• Aspergillosis
Coccidioidomycosis
26 cases in dogs, 9 cases in cats

- *Coccidioides immitis*
- Soil organism from Southwestern desert
- Infects many species
- Organism easier to find in cats than dogs
- 20 to 40 micron spherule with enclosed endospores
- Does not have a budding form
Coccidioidomycosis
Uveitis Organisms

- Blastomycosis
- Cryptococcosis
- Coccidioidomycosis
- Histoplasmosis
- Protothecosis
- Aspergillosis
Histoplasmosis

2 cases in dogs, 24 cases in cats

- *Histoplasma capsulatum*
- Found in soil contaminated with bird droppings
- Affects many tissues
- Ohio River valley
- 4 micron intracellular organism
Histoplasmosis
Uveitis Organisms

- Blastomycosis
- Cryptococccosis
- Coccidioidomycosis
- Histoplasmosis
- Protothecosis
- Aspergillosis
Protothecosis
11 cases in dogs, 0 in cats

- *Prototheca zopfii, Prototheca wickerhamii*
- Saprophytic achlorophyllus algae
- Worldwide distribution infecting several species
- Associated with contaminated water and susceptible host
Protothecosis
Uveitis Organisms

- Blastomycosis
- Cryptococcosis
- Coccidioidomycosis
- Histoplasmosis
- Protothecosis
- Aspergillosis
Canine Systemic Aspergillosis
24 Cases

• Worldwide distribution
• German Shepherd breed at risk (13/24 cases)
• Systemic disease with vasculitis
• Poor prognosis
Systemic Aspergillosis
Equine Recurrent Uveitis (ERU)

- Bilateral, but not always symmetrical
- Cyclic Uveitis
- Etiology
  - Leptospirosis
  - Autoimmunity

- Classic morphologic features
  - Lymphoplasmacytic inflammation with lymphoid follicles
  - Lymphocytes within the ciliary epithelium
  - Linear hypereosinophilic cytoplasmic inclusions in the non-pigmented ciliary epithelium
  - Amyloid deposition on the inner surface of the non-pigmented ciliary epithelium
Pinealitis
West Nile Virus in Raptors
Canine Uveodermatologic Syndrome

Vogt-Koyanagi-Harada Syndrome
VKH
Canine Uveodermatologic Syndrome
Vogt-Koyanagi-Harada Syndrome
VKH

- 125 cases in the COPLOW collection
- Breeds
  - Mixed breed…30
  - Akita...25
  - German Shepherd…8
- Bilateral symmetry is a distinctive feature
  - OS…42
  - OD…29
  - OU…44
- Glaucoma
- Retinal detachment
- Morphologically, relatively quiet eye
Canine VKH
Canine Granulomatous Scleritis
82 cases: 12 Cocker Spaniels
Canine Granulomatous Scleritis
Necrotizing scleritis

- The disease is defined by the scleral predilection
- You may see granulomatous uveitis, like VKH
- You may see episcleritis, like NGE
- 46 Females 31 Males
Scleritis with Ectasia
Feline Lymphoplasmacytic Uveitis (L/P Uveitis)

- 696 cases out of 6,573 total feline cases (10%)
- Second most common disease associated with glaucoma in the COPLOW pathology collection (70% of L/P uveitis submissions have glaucoma also)
- There is vitreous degeneration that is underemphasized in this disease
- About 10% have lens protein in the anterior vitreous, secondary to rupture/leakage at the level of the posterior pole
- Many possible causes have been studied or suggested, but the cause is surely nonspecific and multifactorial
Alcian Blue PAS
Lens Protein