Case # 53: N12-885

Jenny Pope
1st year Anatomic Pathology Resident
University of Tennessee
Signalment and Clinical Findings

- 3 year old FS Domestic shorthair
Signalment and Clinical Findings

- 3 year old FS Domestic shorthair
- Uveitis and secondary glaucoma OD
Signalment and Clinical Findings

- 3 year old FS Domestic shorthair
- Uveitis and secondary glaucoma OD
- 2 weeks later
  - Worsened uveitis and conjunctival mass OD
  - Blind OU
  - Fixed and dilated pupil OS
Gross Findings
Conjunctival mass
Microscopic Findings
Conjunctival Mass
Conjunctival Mass

Disruption of choroid
Conjunctival Mass

Disruption of choroid

Peri-neural inflammation

Posterior Synechia
Conjunctival Mass

Disruption of choroid

Peri-neural inflammation

Posterior Synechia

Cyclitic Membrane

Disruption of choroid
Blastomyces!!!

Broad based budding
Morphologic Diagnosis

- Right eye: Marked chronic pyogranulomatous panophthalmitis with intralesional yeasts (*Blastomyces dermatitidis*)
Discussion

- *Blastomyces dermatitidis*
  - Thermally dimorphic fungus
  - Ubiquitous in wet soil
  - Cases often concentrated geographically
Discussion

- *Blastomyces dermatitidis*
  - Thermally dimorphic fungus
  - Ubiquitous in wet soil
  - Cases often concentrated geographically

- Systemic blastomycosis
  - Common in dogs, rare in cats
  - Central nervous system involvement
  - Lung, eye, skin, lymph nodes
Pathogenesis

Inhalation of conidiophores
Pathogenesis

Inhalation of conidiophores

Phagocytosis by alveolar macrophages
Pathogenesis

Inhalation of conidiophores

Phagocytosis by alveolar macrophages

Transformation to yeast forms
Pathogenesis

Inhalation of conidiophores
→
Phagocytosis by alveolar macrophages
→
Transformation to yeast forms
→
Hematogenous or lymphatic spread
Acknowledgements

- Dr. Danielle Reel
- Dr. Kim Newkirk
- Fellow residents and faculty
- UTCVM histology lab
Questions?

Areas Endemic for Blastomycosis