Case 27: Domestic Shorthair Cat

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Patient Signalment & History

- Feline – Domestic Shorthair (DSH)
- 12 years old
- Spayed female
- 1.9kg, BCS 3/9
- Previously treated for lymphoma
Gross Findings

- Flea dirt
- Generalized muscle atrophy
- Ulceration on the muzzle
- Sternal pleura, pericardium, epicardium, mediastinum: raised, white, dull foci up to 1 mm in diameter
- All lung lobes: firm, white, caseous nodules up to 4 cm in diameter
- Granular, tan, flat focus 5x5 mm in diameter on R dorsal cerebrum
- Ileocolic junction thickened
Gross Diagnoses

- **Lung.** Granulomatous pneumonia, multifocal to coalescing.
- **Skin.** Ulcerative, granulomatous dermatitis, focal.
- **Mediastinum.** Granulomatous mediastinitis, multifocal.
- **Pleura.** Granulomatous pleuritis, multifocal to coalescing.
- **Brain.** Granulomatous encephalitis, focal.
Histologic Diagnosis: Brain

- Granulomatous encephalitis, necrotizing, focal, severe, chronic.
- Etiology: *Blastomyces dermatitidis*
Other Organs
Histologic Diagnoses

- Lung. Granulomatous pneumonia, multifocal to coalescing, severe, chronic.
- Liver. Hepatitis, necrotizing, suppurative, multifocal, moderate, chronic.
- Kidney. Interstitial nephritis, suppurative, focal, moderate, chronic.
- Skin. Dermatitis with ulceration, granulomatous, multifocal, severe, chronic.
Blastomycosis

- Double-contoured, broad-based budding, dimorphic fungus, 5-25 μM

Centers for Disease Control and Prevention; www.cdc.com
Systemic blastomycosis

- Rare in immune competent animals
- Heavy, prolonged chemotherapy $\rightarrow$ immunosuppression

Pathogenesis:
- Mold in environment, produce spores $\rightarrow$ inhalation of spores $\rightarrow$ yeast body production in tissue $\rightarrow$ hematogenous dissemination

BBELLS
- Bone, brain, eyes, lymph nodes, lungs, skin
- Cats: respiratory $>$ brain $>$ lymph nodes $>$ skin $>$ eyes
Case Outcome

• No lymphoma seen in this patient
• Organs examined but uninvolved in systemic disease:
  • Eyes
  • bone & bone marrow
  • Heart
  • GI tract
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QUESTIONS?
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