Disseminated infection in a Labrador Retriever

Sophie Aschenbroich, Susan Sanchez, Jeremy O’Neill, Simon Platt, Uriel Blas-Machado

Department of Pathology, College of Veterinary Medicine, University of Georgia, Athens, GA

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Signalment &
Clinicopathologic findings

- 1-year-old, female spayed Labrador Retriever

- **Presentation**
  - Persistent pyrexia
  - Variable neurologic signs

- **Cerebrospinal fluid analysis:**
  - Neutrophilic pleocytosis

- **MRI**
  - Multifocal variably sized lesions

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Morphologic diagnosis:

Kidney: Renal pyogranulomas, multifocal to coalescing, severe,

with intrallesional fungal hyphae and conidia
Laboratory findings

• Culture:
  • *Blastomyces dermatiditis*

• DNA sequencing:
  • *Pseudallescheria boydii*

Septate hyphae, with conidiophores
Pseudallescheria boydii

- Ubiquitous saprophytic ascomycete
- Pseudallescheria/Scedosporium complex
  - Emerging human pathogen
  - Veterinary species
    - Horses, ruminants, pigs
    - Dogs
- Diagnostic challenge
  - Morphologically similar to Aspergillus sp. and Fusarium sp.
**P. boydii** disease manifestations

**Humans**
- **Eumycotic mycetomas**
- Disseminated infections
  - Meningitis
  - Brain abscesses

**Horses, ruminants, pigs**
- **Eumycotic mycetomas**
- Nasal granulomas, keratitis, abortion, onychomycosis, pneumonia

**Dogs**
- **Eumycotic mycetomas**
- Subcutaneous/visceral
- Keratitis, periorchitis, rhinitis, sinusitis
- Disseminated disease

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Disseminated disease in dogs

- German Shepherds
- Organs involved:
  - heart, brain, bone, joints, lungs, intestines, pancreas, liver, cranial mediastinum, kidney, eye, lymph nodes, muscle, subcutis, and adrenal glands
Predisposing factors

- **Humans**
  - Underlying conditions (diabetes mellitus, leukemia, lymphoma)
  - Immunosuppression

- **Dogs**
  - Trauma
  - Wound contamination
  - Contaminated water
  - Inhalation

- **Disseminated infections**
  - Immunosuppression?
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Any questions??

**IS YOUR STORY OVER YET?**

**I'VE PASSED KIDNEY STONES LESS PAINFUL THAN THIS.**