THE BLACK SPOT

Or a Curious Case of Cerebral Catastrophe

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Meet G

• Domestic shorthair
• Adult (6-7 years)
• Female
• Spayed
• Indoor/outdoor
• Approximately 5 months late for vaccinations
History

• Thursday evening owner noticed cat was ADR.
• Brought to RDVM immediately for evaluation.
Physical Exam

• Dehydrated
• Normal TPR
• Eating and drinking
• RDVM kept cat overnight for evaluation
• Administered subcutaneous fluids
• No change Friday morning.
Friday afternoon…

- Erratic behavior
- Lacked vision
- Foaming at mouth
- Ataxic
- Biting cage
- Sudden aggressive behavior
- Died before RDVM could euthanize
Differentials – acute central neurologic signs

• Trauma
• Toxin
• Neoplasia
• Infectious
  • Viral
    • Rabies
    • FIP
  • Bacterial
  • Fungal
  • Protozoal: Toxoplasma
  • Parasitic: Cuterebra (clinician suspected)
Necropsy

• 4/9 BCS

• Brain:
  • Mass
  • Focal
  • Black to brown
  • Nodular
  • Poorly demarcated
  • Expanding the left piriform lobe
  • Diffuse swelling of the gyri
  • Diffuse cerebral hyperemia
Morphologic Diagnosis

- Cerebral encephalopathy with focal, unilateral, black to brown mass of the left piriform lobe
Histology

- Edema
- Neuronal necrosis
- Fragmentation of neuropil
- Gliosis
- Inflammatory cells: Neutrophils, Macrophages, Multinucleated Giant Cells
- Reactive vasculature
- Pigmented fungal hyphae
Fungal morphology

- Pigmented
- 4-7um wide
- Parallel walls
- Septate
- Dichotomous, right angle branching
- Bulbous terminal ends
Phaeohyphomycosis

• Black molds, or dematiaceous fungi
• Melanin pigment in cell walls and spores
• Opportunistic
• Cutaneous or systemic
• Respiratory tract most common route
• Some are neurotropic!
  • *Cladophialophora bantiana*
  • *Ochroconis (Dactylaria) gallopava*
• Very rare in cats, see more often in avian species!
Commonly present with:

• Headaches
• Nausea
• Vomiting
• Fever
• Rigidity
• Behavioral change
Etiologic Diagnosis

• Cerebral phaeohyphomycosis
Prevention/Treatment

- ...
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References:


Questions?