N11-373
Disseminated fungal infection in a dog

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Case signalment and history

• 23.2kg, 2-year-old, male Australian Shepherd
• Presented to the emergency service at the UF
• Dead on arrival and necropsied
• Serum chemistry at a local vet hospital:
  ➢ BUN: 207mg/dL (8-28mg/dL)
  ➢ Creatinine: 7.4mg/dL (0.5-1.7mg/dL)
  ➢ Phosphorus: 16.4mg/dL (2.9-5.3mg/dL)
Kidney

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Pulmonary artery

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Heart

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Kidney: medulla and papilla

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Kidney: cortex

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Heart: left ventricle

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Pulmonary artery and bronchus
Intralesional fungal hyphae

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Morphologic diagnoses

Disseminated fungal infection:

1. **Kidneys**: Pyelonephritis, pyogranulomatous and necrotizing, multifocal to coalescing, chronic, severe, with intralesional fungal hyphae

2. **Heart**: Myocarditis, pyogranulomatous and necrotizing, multifocal to coalescing, subacute, severe, with intralesional fungal hyphae

3. **Pulmonary artery**: Arteritis and periarteritis, pyogranulomatous and necrotizing, transmural, chronic, severe, with intralesional fungal hyphae
Other histologic lesions

Similar lesions with intrallesional fungi:

- Brain
- Mitral valves
- Tracheobronchial lymph node
- Thyroid glands
Fungal culture

Fusarium sp.

http://upload.wikimedia.org/wikipedia/commons/4/47/Fusarium_subglutinans.jpg

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Discussion

• Histologic findings and fungal culture were consistent with disseminated fusariosis

• PCR or IHC would be required for further identification of the fungus

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**Fusarium sp.**

- Saprophytic fungal organisms

- Occasionally the cause of opportunistic infections in humans and animals

- A few reports of fusariosis in dogs;
  - dermatomycosis, meningoencephalitis and pyelonephritis
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References


