Case #A14-39077

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Signalment and history

- 2-year-old female spayed English Setter canid
- Traveled from Johannesburg, South Africa to Atlanta, Georgia, USA
- Dog was alive when the plane landed, arrived at the quarantine facility deceased
- CPR attempted unsuccessfully
- Temperature was 41.7°C [107°F]
Differentials for canine aortic aneurysm

- Hypertension
- Atherosclerosis
- Parasitic migration
- Spontaneous dissecting aneurysms (Leonberg dogs)
LC: Lateral Chords
I: Intestine
M: Musculature (coelomyarian)
U: Uteri
*: Pseudocoelomic material

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Morphologic Diagnosis

- Aorta: Necrogranulomatous aortitis, chronic, multifocal to coalescing, severe with aortic rupture, periaortic hemorrhage and intralesional nematodes morphologically consistent with *Spirocerca lupi*

- Parasitologist identified L4/L5 larvae of *S. lupi* based on morphology
Spirocerca lupi

- Spirurid nematode found in tropical and subtropical regions
- Acquired by eating intermediate host (coprophagic beetle) or paratenic hosts (rodents, rabbits, birds, small reptiles, or amphibians)
- L3 larvae penetrate gastric mucosa → migrate through gastric arteries to thoracic aorta → migrate to the adjacent esophagus where they mature and begin laying eggs → eggs passed in the feces and consumed by coprophagic beetles
**Spirocerca lupi**

- Associated with:
  - aortic aneurysms and ruptures
  - esophageal nodules that can undergo transformation to sarcomas (most frequently osteosarcoma or fibrosarcoma)
  - thoracic vertebral spondylitis and spondylosis
  - hypertrophic osteopathy
  - aberrant migration
  - Unknown if flight precipitated rupture

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*Spirocerca lupi* granulomatous pneumonia in two free-ranging maned wolves (*Chrysocyon brachyurus*) from central Brazil

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Questions?