Case 55
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Signalment and History

- Adult ♀ gray fox
  \((Urocyon cinereoargenteus)\)
- Found drinking water from a covered swimming pool, laid down, ataxic, euthanized
- Submitted to Southeastern Cooperative Wildlife Disease Study (SCWDS) by the Maryland Department of Natural Resources on April 20, 2011
IHC *Listeria spp.*
IHC Canine Distemper Virus
MORPHOLOGICAL DIAGNOSES

Liver:

- Severe, subacute, multifocal to coalescing, necrotizing hepatitis with intralesional, gram-positive bacilli consistent with *Listeria monocytogenes*

- Multifocal, intraepithelial, intranuclear and intracytoplasmic (bile ducts) inclusion bodies consistent with *canine distemper virus* (morbillivirus)
ANCILLARY TESTS

- **Microbiology:**
  - Bacterial culture positive for *Listeria monocytogenes*

- **Virology:**
  - Brain negative for rabies virus and positive for Morbillivirus by fluorescent antibody test
**CANINE DISTEMPER VIRUS**

- Family Paramyxoviridae, Genus *Morbillivirus*
- Global distribution
- Wild and domestic canids; raccoons, skunks, ferrets

- Transmission: aerosolized droplets
  - Transmission likely density-dependent
  - CDV outbreaks occur regularly, having a significant impact on local populations

- Highly contagious, systemic infection
  - Highly immunosuppressive
LISTERIA MONOCYTOGENES

- Gram-positive bacillus bacterium
- Global distribution, ubiquitous in nature
- Domestic animals, birds, and humans
- Transmission: fecal-oral route
- Can cause septicemia
Thank you!

- Dr. Nicole Nemeth
- Dr. Kevin Keel
- Dr. Elizabeth Howerth