YOU GIVE
ME FEVER
A17-23659

Martha Frances Dalton
UGA Department of Pathology
SEVPAC 2017
Signalment and History

- Adult cottontail rabbit found dead
- Submitted by owner of a beagle training facility
- Facility trapped wild rabbits and kept rabbits in paddocks for training purposes
- No monitoring of rabbits; feeders provided
- 30 rabbits died in the past 3 weeks
Photo courtesy of Annabelle Burnum; Permission granted viewing only on SEVPAC website
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◆ DIFFERENTIAL DIAGNOSES

◆ *Francisella tularensis*
◆ *Yersinia pseudotuberculosis*
◆ *Yersinia pestis*
◆ *Salmonella* spp.
◆ *Clostridium piliforme*
◆ *Listeria monocytogenes*
◆ *Pasturella multocida*

◆ MORPHOLOGIC DIAGNOSIS:

◆ Necrotizing splenitis and hepatitis, multifocal, acute, severe, with gram-negative coccobacilli
**MORPHOLOGIC DIAGNOSIS:**

- Necrotizing splenitis and hepatitis, multifocal, acute, severe, with gram-negative coccobacilli

**ETIOLOGIC DIAGNOSIS:**

- Hepatic and splenic francisellosis

**ETIOLOGY:**

- *Francisella tularensis*
Tularemia | Rabbit Fever
Deerfly Fever | O’Hara’s Disease

- Highly infectious zoonotic disease
  - Type A: highly virulent; rodent/lagomorphs (ticks)
  - Type B: less virulent; aquatic life cycle (mosquitos)

- Most severe manifestations in rodents, lagomorphs, humans, and sheep

- Reported in many mammals, fish, birds, and amphibians

- Transmitted by ticks or biting arthropods
Tularemia Transmission: Type A
Tularemia Transmission: Type A
PATHOGENESIS

- Transmission by percutaneous inoculation, direct contact, ingestion, or inhalation

- Organism is phagocytized by macrophages -> disrupts phagolysosome membrane, escapes to cytosol, and multiplies-> spread throughout reticuloendothelial system-> cell death by apoptosis-> thrombosis and necrosis

- Necrotic lesions within lung, spleen, liver, lymph nodes, and bone marrow
PATHOGENESIS

◆ Transmission by percutaneous inoculation, direct contact, ingestion, or inhalation

CDC Bioterrorism Agents

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- Transmission by percutaneous inoculation, direct contact, ingestion, or inhalation

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Diagnosis of Category A Agents

◆ Report diagnosis to state veterinarian or state public health veterinarian

◆ Report diagnosis of a select agent to CDC and APHIS

◆ Incinerate carcass in presence of Biosafety Officer
Acknowledgements

Cathy Brown, DVM, PhD, DACVP

Annabelle Burnum, DVM

UGA Pathology Department Faculty, Staff, and Residents

Southeastern Cooperative Wildlife Disease Study Diagnosticians and Mentors

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Questions?

BAD HARE DAY
References


5. CDC_Bioterrorism_Agents.pdf/


