“Invasion of the Parasites”
In a Rabbit
Case R13-17377

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Presented at SEVPAC 2015. Permission granted only for viewing on SEVPAC website.
History

- 12-week-old male California meat rabbit
- Recumbent with labored breathing and bradycardia
- Found dead with teeth clamped to cage
- This rabbit and 5 others were purchased two weeks prior to death
Gross Examination

- **Body weight** - 2.5 kg
- **Unremarkable**
Histopathology
Histopathology
Histopathology

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Coccidiosis

• Important cause of clinical disease
  o Weight loss and mortality
• 12 species of the genus *Eimeria* reported
  o Two or more species of coccidia are often present in diseased rabbits
  o Role of various species as a pathogen → ???
• Transmission:
  o fecal-oral → ingestion of infectious sporulated oocysts
Coccidiosis

Source: www.en.wikipedia.org

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Hepatic Coccidiosis

- *Eimeria stiedae*
  - coccidian in the Apicomplexa phylum
  - parasitizes the bile duct epithelium
- Young rabbits (esp. weanlings) - most susceptible
- Clinical signs:
  - asymptomatic
  - anorexia, distended abdomen due to hepatomegaly with ascites, failure to gain weight, occasional diarrhea or icterus, acute death

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Intestinal Coccidiosis

- Intestinal coccidiosis can occur in any group of rabbits.
  - Most pathogenic - *E. intestinalis* and *E. flavescens*
  - Moderately pathogenic – *E. magna*, *E. irresidua*, *E. piriformis*
  - Least pathogenic – *E. perforans*, *E. neoleporis*, *E. media*

- Clinical signs
  - asymptomatic
  - weight loss, mild intermittent to severe diarrhea with blood or mucous, dehydration
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Gram Stain
Encephalitozoon

- *Encephalitozoon cuniculi*
  - obligate intracellular microsporidian parasite
- Affects multiple mammals → rabbits

- Transmission
  - ingestion of spores shed in urine from infected animals
  - transplacental - controversial
  - experimental - oral and respiratory route

- CNS lesions - 30 days postexposure

** Significance in this animal **

Source: [www.smallanimalchannel.com](http://www.smallanimalchannel.com)
References


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QUESTIONS ???