

Rabbit coccidiosis

Family: *Eimeriidae*

Significance

- Intestinal coccidiosis and hepatic coccidiosis occur in rabbits
- Rabbits infected with *Eimeria stiedae* are not fit for research as they exhibit metabolic derangement, poor growth rates and feed conversion efficiency and mortality rates may be high.
- Enzootically infected rabbit colonies with intestinal coccidiosis may consider continuing with research, keeping in mind that clinical disease may be seen if rabbits undergo stress or immunosuppression.

Prevalence

- Common protozoal disease of rabbits worldwide, but rare in SPF rabbit colonies

Disease

- Hepatic coccidiosis is frequently subclinical. Clinical signs include anorexia, lethargy, diarrhoea and enlarged abdomen (hepatomegaly). Death seen in young rabbits.
- Intestinal coccidiosis may be subclinical, or rabbits may have watery, fetid diarrhoea, dehydration, staining around the perianal region, and low body condition score.
- Number of oocysts ingested may determine the severity of the disease.

Transmission

- Sporulated oocyst ingestion through contaminated water or feed (faecal-oral).

Isolation and Diagnosis

- Intestinal coccidiosis:
 - Faecal floatation
 - Direct faecal smear
 - Mucosal scrapings
 - Histopathology
- *Eimeria stiedae*
 - Bile fluid flotation
 - Gall bladder scrapings or bile smear
 - Cytology: Impression smears of liver
 - Histopathology.

Species

- *Eimeria stiedae* causes hepatic coccidiosis
- Intestinal coccidiosis: *E. intestinalis*, *E. magna*, *E. flavescens*, *E. irresidua*, *E. piriformis*, *E. perforans*, *E. media*.

Prevention and Control

- Quarantine and testing

- Coccidiostat medications
- Depopulation, disinfection, and repopulation of a colony.
- Rederivation by caesarean section and embryo transfer may be considered.

Reading

- **Charles River.** Rabbit Coccidiosis (Intestinal and hepatic). [Cited 19 April 2023]. Available at: <https://www.criver.com/products-services/research-models-services/animal-health-surveillance/infectious-agent-information/rabbit-coccidiosis?region=3701>
- **Sivajothi S, Reddy BS, Rayulu, VC.** 2016. Study on impression smears of hepatic coccidiosis in rabbits. *Journal of Parasitic Diseases*, 40(3): 906-909.
- **University of Missouri Comparative Medicine Program and IDEXX-BioAnalytics.** **Diseases of research animals – DORA.** [Cited 19 April 2023]. Available at: <http://www.dora.missouri.edu/>