

Diagnostic Exercise From The Davis-Thompson Foundation*

Case #: **153** Month: **November** Year: **2020**

Answer Sheet

Title: *Bovine coccidiosis*

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Clinical History: A calf in poor body condition was found dead in a group of 130, 5 to 6 months old calves that had been weaned one month previously. Another calf in the same herd had diarrhea and neurologic signs. On the following day, the animal was prostrated, in lateral recumbency, and in agony. Euthanasia and necropsy were performed. An additional calf with diarrhea, poor body condition and tenesmus was observed.

Necropsy Findings:





Follow-Up Questions: Morphologic diagnosis, etiology, condition.

Morphologic diagnosis: Diffuse severe acute hemorrhagic typhlocolitis and proctitis

Etiology: *Eimeria bovis* and *Eimeria zuernii*

Condition: Coccidiosis

Discussion:

Coccidiosis occurs mainly in calves and weaned feeder cattle less than ~1 year of age when one or both of the potentially pathogenic species (*Eimeria bovis* and *Eimeria zuernii*) produce heavy infection. Coccidiosis may occur in animals on pasture and concentrated at water holes, but it is more common in animals in feedlots or feed yards with an inadequate sanitation level. The disease is characterized by diarrhea that can get severe and with the passage of mucus (dysentery), accompanied by tenesmus that may lead to rectal prolapse. Animals dehydrate and become hyponatremic and sometimes anemic (Uzal et al. 2016). Some animals develop concurrent neurologic signs, including tremors, nystagmus, opisthotonos, and convulsions; many of these die within a few days. The nervous signs in bovine coccidiosis are not associated with recognized lesions in the brain; they have been related to a yet not fully characterized neurotoxin found in affected animals' blood.

Reference:

Uzal F.A., Hostetter J. & Plattner B. 2016. Alimentary system: Coccidiosis in cattle. P. 229-231. In: Maxie GM (Ed.) Jubb, Kennedy, and Palmer's Pathology of Domestic Animals. 6th Ed. Elsevier, St. Louis

*The Diagnostic Exercises are an initiative of the **Latin Comparative Pathology Group (LCPG)**, the Latin American subdivision of The Davis-Thompson Foundation. These exercises are contributed by members and non-members from any country of residence. Consider submitting an exercise! A final document containing this

material with answers and a brief discussion will be posted on the CL Davis website (http://www.cldavis.org/diagnostic_exercises.html).

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