Amebiasis in an Amazon Tree Boa: C09-0078
*(Corrallus hortulanus)*

Ian Hawkins
History

- Animal was from a collection of snakes for research at the University of Alabama
- The colony suffered multiple losses over several weeks.

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Signs

- Anorexia
- Large swelling at caudal abdomen accompanied by a foul smell
- Followed by death
- Dead and moribund animals had a “necrotic smell”

www.exoticpetvet.com/breeds/fish11.htm

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Gross findings – per submitting veterinarian

- The large bowel of affected snakes had a locally extensive area of thickening and discoloration.
- The bowel appeared necrotic and the mucosa was covered with a pseudomembrane.
The UFVMC - Surgical Pathology service received tissues from four separate snakes.

Segments of liver, stomach and large bowel were submitted from the snake described in this case.

Samples were received during the months of December 2008 and January 2009.
Liver
Periodic Acid-Schiff Stain
Stomach
Large Intestine
Electron microscopy
Final Anatomic Diagnoses

- Hepatitis, necrohemorrhagic and histiocytic, with intralesional amoebae and Gram-negative, rod-shaped bacteria.
- Necrohemorrhagic gastritis and colitis, lymphohistiocytic with intralesional amoebae and Gram-negative, rod-shaped bacteria.
Discussion

- The microscopic and ultrastructure features of the PAS positive amoeboid organisms were consistent with *Entamoeba invadens*
- This is the only known pathogenic *Entamoeba* species in snakes
Entamoeba invadens

- An obligate protozoan parasite
- Direct life cycle
- Infective stage – cyst
- Motile and invasive stage – trophozoite
- Matures to the motile stage in the intestinal tract
- Snakes and lizards are the most susceptible reptiles
- Turtles and crocodilians are often carriers with decreased susceptibility to infection
- Increased risk of outbreaks in mixed reptile collections.
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Questions?
References