Larval cyathostomiasis in a Gypsy Vanner (*Equus caballus*)
Case #6 (N14-19)
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• 1 year old Gypsy Vanner colt
• Presented with acute recumbency on 1/5/2014
• Unable to rise after treatment with antimicrobials, plasma and IV fluids.

http://www.kimballstoc k.com/pix/HOR/01/HOR _01_MB0053_01_P.JPG

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Physical exam

- Presented in lateral recumbency in trailer
- Poor body condition score
- Cardiovascular:
  - HR 80 bpm
  - RR 40 bpm
  - Pale MM, CRT of 2 seconds
- Temp: 98.5°F
Ancillary diagnostics

- CBC: Elevated WBC (12.7k/µL) and fibrinogen (600 mg/dL)

- Serum chemistry: (hypoproteinemia/hyperkalemia)
  - Total protein = 5.6g/dL (6.1-8.4)
  - Albumin = 2.2g/dL (2.7-4.5)

- Thoracic ultrasound: Mild pneumonia with small amount of pleural fluid.
- Abdominal ultrasound: Edema in the wall of the colon, small intestine and cecum with a small amount of peritoneal fluid.

- Fecal Float: Negative
1/7/2014:
- Colic episode
- Abdominal radiographs: intestinal sand
- Diarrhea, but ate and stood while assisted with sling.

1/8/2014: Plasma transfusion
1/10/2014: Died after 36 hours of profuse watery diarrhea.
Morphologic diagnosis

- Colitis, granulomatous, chronic, with edema and intralesional encapsulated nematodes [Etiology: small strongyles].

- Diagnosis consistent with larval cyathostomiasis
Horse is infected by ingestion of early L3 stage (EL3), which penetrates hindgut and forms a fibrous capsule. EL3 can arrest up to 3 years before progression to late L4, which exits mucosa. Syndrome of larval cyathostomiasis.

In lumen: Late L4 matures into L5. Adults reproduce and eggs are released into environment. L1 emerges from egg on pasture and rapidly matures into L3.

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Clinical signs of larval cyathostomiasis

- Rapid weight loss
- Colic
- Leukocytosis
- Hyperglobulinemia
- Hypoproteinemia
- Severe diarrhea
- Edema of limbs and ventrum

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References