Case #10-424

Tanya LeRoith, Bonnie Brenseke, David Caudell, Bernie Jortner
Signalment

- 8-month-old
- Red Angus-Hereford-Tarentaise cross heifer
History

• Previously healthy group of heifers
• Dewormed with Phoenectin (ivermectin) pour-on
• Developed lethargy post administration (droopy ears, lying down, decreased appetite)
• 3 died, 4 symptomatic
Necropsy finding

- **Bleeding diathesis**
  - Subcutis, thorax, abdomen, pericardium, etc.
- **0.8 x 0.5 x 0.5 cm tan, homogenous subdural mass replacing and compressing the dorsal white matter of thoracic spinal cord**
Histology findings

- Spinal cord
  - Nodular lymphoid hyperplasia with intralesional nematodes, thoracic spinal cord

- Heart:
  - Subendocardial hemorrhage; multifocal, acute, moderate
  - Myocarditis; suppurative, focally extensive, acute, mild

- Large artery, renal: Arteritis; suppurative, moderate with fibrosis of the tunica media

- Liver: Centrilobular necrosis

- Spleen: Lymphoid depletion and necrosis; mild
Parelaphostrongylus tenuis

• Meningeal worm of white-tailed deer
• Common in the southeastern US
• Metastrongyloid with slug and snail intermediate hosts
• Adults deposit eggs in meninges or venous sinuses – embryonate in lungs – first stage larvae pass through the feces – penetrate food pads of slugs and snails – develop into 3rd stage larvae
• Deer are infected by eating slugs/snails – develop into adults in dorsal gray columns in the spinal cord – migrate to subarachnoid space.

http://old.cvm.msu.edu/extension/Rock/ROOKpdf/brainwormkaren.PDF

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P. tenuis in cattle

- Cattle are reported to be refractory to infection
- Two other cases reported
- One was associated with nodular lymphoid hyperplasia
## Case wrap-up

**TOXICOLOGY REPORT 03/11/2010**

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<thead>
<tr>
<th>Sample</th>
<th>Analysis</th>
<th>Concentration</th>
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<td>Hay</td>
<td>Plant ID</td>
<td>See interpretation</td>
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Interpretation: Examination of the hay yielded the following grasses present:
- Orchard grass- predominant
- **Sweet vernal grass**
- Fescue grass

The **sweet vernal grass has the potential to cause hemorrhage** but the hay was in real good condition- no dampness or mold. That and the onset time for this problem does not seem to fit well in this case.

Dr. Blair Meldrum 3/11/10

*Toxicologist*
Case wrap-up

TOXICOLOGY REPORT
Sample source: Necropsy #:10-0424

Sample  Analysis  Concentration
Liver    Coumarins  Dicoumarol 15 ppm

Interpretation:
Dicoumarol is a potent anticoagulant and can cause hemorrhagic diatheses. It was found in significant concentrations in the liver.

Blair Meldrum  3/24/10
Toxicologist   Date
Acknowledgements

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