



Diagnostic Exercise

From The Davis-Thompson Foundation*

Case #: **207** Month: **February**; Year: 2023

Question Sheet

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Clinical History:

A euthanized, 14-year-old, Warmblood gelding that had participated in an equine show was presented for necropsy and diagnostic workup to the San Bernardino laboratory of the California Animal Health and Food Safety Laboratory System. The animal had a 4-day history of mildly swollen limbs and hyperthermia, and developed neurologic signs shortly before euthanasia.

Necropsy Findings:

The urinary bladder had multifocal to coalescing hemorrhages in the mucosa and approximately 5 ml of turbid urine with sandy sludge (Figure 1). The entire spinal cord was removed and cross-sectioned serially after fixation in 10% neutral-buffered formalin during 48h. Multifocally, in multiple sections of the cervical, thoracic, and lumbar segments, there were uni- or bilateral and asymmetrical, wedge-shaped areas of gray discoloration and hemorrhage (Figures 2-4). In addition, there were extensive hemorrhages around the nerve roots of the cauda equina.

Gross Findings:

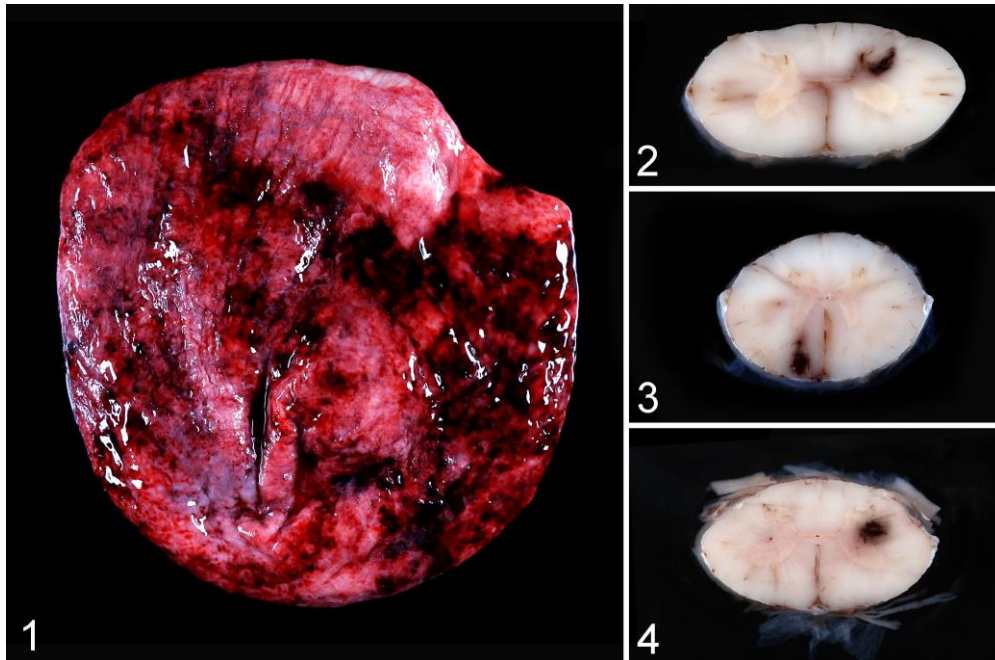
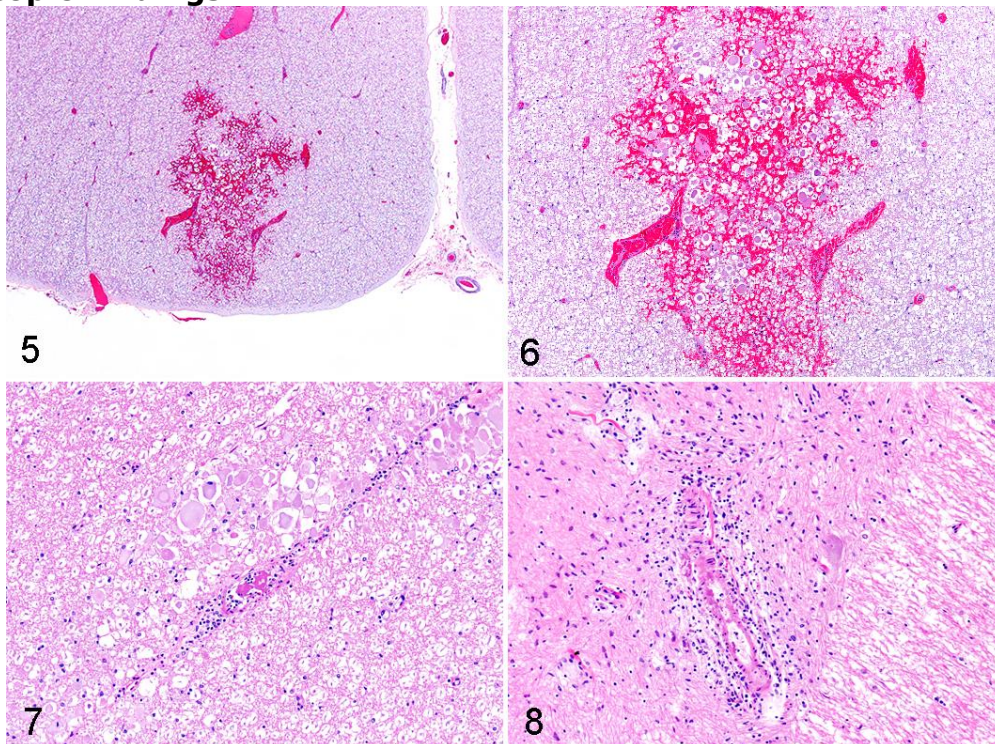


Figure 1. Urinary bladder. **Figures 2-4.** Transverse sections of formalin-fixed spinal cord. **Figure 2.** Cervical spinal cord. **Figure 3.** Thoracic spinal cord. **Figure 4.** Lumbar spinal cord.

Microscopic Findings:



Figures 5-8. Spinal cord. Hematoxylin and eosin.

Follow-up questions:

- *Five differential diagnoses for the gross lesions in the spinal cord (Figures 2-4)*
- *Microscopic description for the lesions in the spinal cord (Figures 5-8)*
- *Most likely cause based on clinical history and gross and microscopic findings.*

*The Diagnostic Exercises are the **Latin Comparative Pathology Group (LCPG)** initiative, 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 (<https://davisthompsonfoundation.org/diagnostic-exercise/>).

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