Diagnostic Exercise
From The Davis-Thompson Foundation*

Case #: 130 Month: October Year: 2019

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Clinical History: This 14-year-old, male English Cocker Spaniel had a three-week history of anorexia, seizures and vomiting. It was brought to a veterinary hospital, where the physical exam revealed severe jaundice and free blood within the abdominal cavity. The dog was in poor body condition and severely lethargic during the physical exam. It also had nystagmus. Ultrasound was requested to investigate the origin of the hemoperitoneum; however, the dog died before the exam was performed. A complete necropsy was performed. Information regarding complete blood count, serum biochemistry and clinical diagnosis was not provided by the veterinarian.

Figure 1
**Necropsy Findings:** The dog was in poor body condition and its mucous membranes were severely jaundiced. Approximately 650 mL of blood were present within the abdominal cavity. The liver was diffusely enlarged, with an irregular capsular surface that was more pronounced in the right lobes (Figure 1). Several dark red nodules (0.5 to 2 cm) were scattered through the capsular surface of the right lateral and medial lobes. A large nodule was seen at the capsular surface of the quadrate lobe as well. The appearance of the hepatic parenchyma was heterogeneous: the right medial and lateral lobes were dark red, while the left medial and lateral lobes were orange with yellow and red areas scattered throughout them. The quadrate lobe was diffusely yellow. On cut surface, the liver was predominantly firm, with multifocal friable areas. The left medial hepatic lobe had two small foci of capsular rupture. Multifocal hemorrhages were seen in the pancreas, serosal surfaces of the stomach and intestines, and intestinal mucosa. Other necropsy findings included the presence of approximately 50 ml of blood-tinged fluid within the thoracic cavity and two small (1.2 and 0.8 cm), tan nodules within the pulmonary parenchyma.

**Follow-up Questions:** 1. What is your morphologic diagnosis and what other possible diagnosis would you include in your list? 2. What findings would you expect to find in the serum biochemistry panel? 3. What is the most probable cause of the neurological clinical signs presented by this dog? 4. Can you identify one or more pathogenetic mechanisms of death based on the clinical history and necropsy findings of this dog?

*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](http://www.cldavis.org/diagnostic_exercises.html)).

**Associate Editor for this Diagnostic Exercise:** Mariana Flores  
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