



Diagnostic Exercise

From The Davis-Thompson Foundation*

Case #242; Month **August**; Year: **2024**

Question sheet

Contributors: Sebastien Banos¹, Sheryl Coutermarsh-Ott², Taylor Young², Jaime Weisman², Francisco R Carvalho¹.

¹Department of Biomedical Sciences and Pathobiology, Virginia-Maryland College of Veterinary Medicine.

² Virginia Department of Agriculture and Consumer Services.

Corresponding author: Francisco R. Carvalho. fcarvalho@vt.edu

History:

Case A is a 10-year-old, spayed female Shih-Tzu dog, with a history of pulmonary hypertension, mild mitral and tricuspid regurgitation, seizures/syncopal episodes, Immune mediated hemolytic anemia – immune mediated thrombocytopenia (IMHA-IMTP), and chronic steroid use (prednisone, discontinued 1 year prior to euthanasia) for the treatment of IMHA-IMTP and immunosuppressants (azathioprine). Blood chemistry and hemogram of this animal revealed increased ALP, neutrophilia and monocytosis. Vetmedin was used for treatment of Mitral Valve Disease (MVD).

Case B is a 7-year-old, neutered male Shih-Tzu dog with a clinical diagnosis of Cushing disease and early-stage mitral valve disease. During months prior to death, has experienced episodes of shaking, weakness, unsteadiness, and inconsistent vomiting. Patient was on Trilostane and Vetmedin for MVD. Similar as in case A, Blood chemistry and hemogram of this animal revealed increased ALP, neutrophilia and monocytosis. The animal was euthanized and submitted for necropsy.

Necropsy findings:

Case A: The most significant findings were restricted to the lung, which were pink with a soft spongy consistency. The liver was moderately enlarged with round margins (Figures 1 and 2).

Case B: The lungs were pink with a texture reminiscent of a semi-firm sponge. Other findings included numerous nodular masses in both adrenal glands, bilateral endocardiosis, multifocal areas of dermal mineralization and a friable red/gray mass in the pituitary gland (Figures 3 and 4).

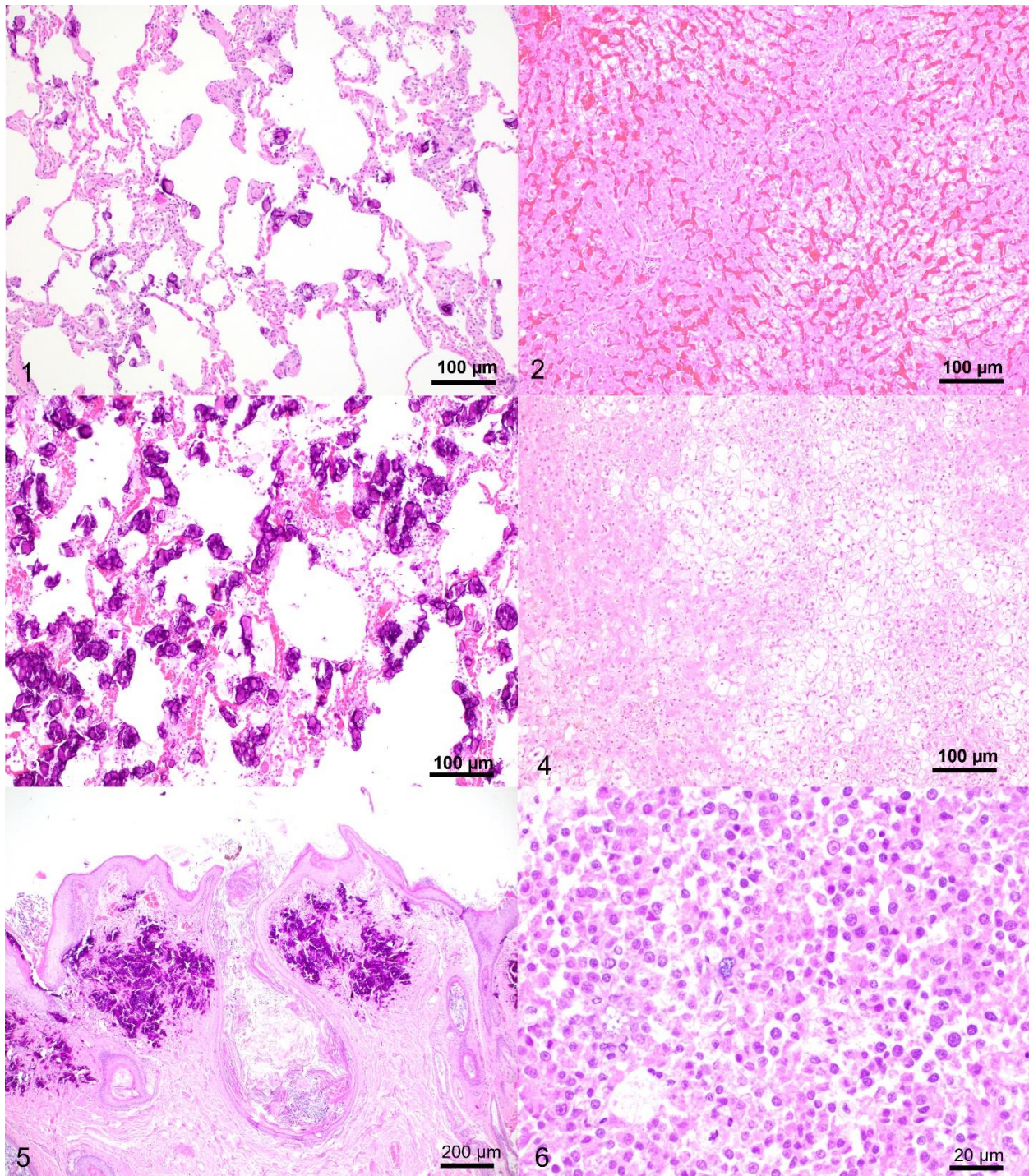


Figure 1 and 2: Dog A: lung and liver, H&E 10X. Figure 3 and 4: Dog B: Lung and liver, H&E 10X. Figure 5 and 6: Dog B: Skin and pituitary mass, H&E 10X.

Follow-up questions:

- *Morphologic diagnosis:*
- *Cause:*
- *Possible pathogenesis:*

*The Diagnostic Exercises are an initiative of the Latin Comparative Pathology Group (LCPG), the Latin American subdivision of The Davis-Thompson Foundation (DTF). 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 DTF website.

(<https://davisthompsonfoundation.org/diagnostic-exercise/>)

Associate Editor for this Diagnostic Exercise: Francisco R. Carvallo.

Editor-in-chief: Claudio Barros