



Diagnostic Exercise

From The Davis-Thompson Foundation*

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Clinical History: A 2-year-old, neutered male, indoor-only Domestic Medium Hair cat had 1-month history of weight loss, decreased appetite, and lethargy. The cat had a previous perineal urethrostomy due to urethral obstruction. Sonographically, kidneys were bilaterally small, with hyperechoic cortices, suggestive of a chronic nephropathy. The owner elected euthanasia due to poor prognosis.

Laboratory Findings: Serum chemistry revealed severe azotemia (creatinine 15.35 mg/dL; reference values are 0.80-2.20 mg/dL).



Figure 1

Necropsy Findings: At necropsy, the cat was thin, weighing 3.3 kg. Both kidneys had irregular surfaces with capsular indentations often following the subcapsular veins. They had a total weight of 17.3 g (0.5% body weight; reference value - 1.1%) and measured 3.5 cm (left) and 3.0 cm (right) in length, corresponding to approximately 1.5 times the length of the body of the second lumbar vertebra (reference range – 2.5-3 times) (Figure 1). A 2-mm diameter nephrolith was present in the left renal pelvis. The urinary bladder was devoid of urine and contained instead some yellow to green, mucoid, gritty material. A 2-mm focus of hemorrhage was in the bladder mucosa. The

liver was diffusely pale tan, with an accentuated lobular pattern, mildly rounded edges, and decreased consistency. No other gross alterations were noted. The perineal urethrostomy site was unremarkable.

Follow-up Questions: Morphologic diagnosis(es), Differential diagnosis, and Cause.

*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).

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