

Diagnostic Exercise

From The Davis-Thompson Foundation*

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Clinical history, laboratory and necropsy findings: A mixed-breed, adult pet chicken was submitted for *postmortem* examination and diagnostic work-up. The chicken had anorexia, lethargy, ruffled feathers, respiratory distress and loss of corporal condition during the last two weeks before death. The chicken received antibiotic treatment for ten days since the onset of clinical signs but no health improvement was noted. Peridomestic rodents were commonly observed surrounding the chicken backyard facility. The *postmortem* examination revealed severe pectoral muscle atrophy (Fig. 1). The pectoral (Fig. 1), thigh (Fig. 2) and lower leg (photo not shown) skeletal muscles (SMs) had numerous variably sized, whitish, well-demarcated streaks to nodules. The liver was enlarged, with multifocal to coalescent, variably sized, discolored areas. The kidneys were also enlarged, with multiple whitish to gray, pint-point foci. The heart had multifocal discolored areas. The vagus nerves in the cervical region had bilateral diffuse enlargement. Samples from the vagus and sciatic nerves, cerebellum, cerebrum, heart, trachea, lungs, esophagus, crop, gizzard, proventriculus, small and large intestine, liver, spleen, ovary, kidneys, pancreas, and pectoral, thigh and leg SMs, were fixed in 10% buffered formalin, pH 7.2, for 48 h. Fresh samples of the liver and spleen were inoculated onto MacConkey agar plates and incubated at 37°C for 24 h. No bacterial growth was observed.



Figure 1 – Chicken. Pectoral muscle.



Figure 2 - Chicken. Thigh muscle.

Follow-up questions: Microscopic description (Figures 1 and 2), microscopic morphologic diagnosis, etiologic diagnosis, etiology, name of the disease, differential diagnoses.

*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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