

DCPAH
P.O. Box 30076
Lansing, MI, 48909
Phone (517) 353-5275

GROSS NECROPSY

Case Number: 3119960
Reported : 07/14/05
Received : 06/27/05
Pathologist: SAH
Case Origin: NECROPSY

Client Account: 295483

Clinic:

AMERICAN WHITE SHEPHERD ASSN.
P.O. BOX 2068
HOWELL MI 48844-2068

Phone: 517-546-3046
Fax: 517-546-3048

Anim. #: 1 Name: KYRA Age: 9y 9m
Breed: GERMAN SHEPHERD DOG Sex: FEMALE SPAYED

HISTORY : According to the history provided, this dog has had a 7-day history of not defecating and vomiting. Additional history is on file at the Diagnostic Center for Population and Animal Health, Michigan State University.

SPECIMEN: CARCASS

SP. CORD REMOVAL <200 LB

This was the body of a 9-year-old, 65-pound, female White German shepherd in good nutrition and mild dehydration. On external examination, there was moderate to marked amounts of dark brown, foul smelling diarrhea adhered to the tail in the perineal region and extending to the hock regions of both right and left rear limbs. There was no anal tone. There was bilateral alopecia of the caudal abdomen. On internal examination, there was approximately 28 ml of clear mucinous fluid throughout the entire length of the esophagus. The lungs were diffusely dark red and heavy. The stomach contained multiple erosions of the mucosal lining varying in size from 1 cm to 4 cm diameter. There were multifocal ulcers in the region of the pylorus, varying in size from 1 cm to 5 cm diameter. The liver was moderately mottled red to tan. The small intestinal mucosa was diffusely thickened and hyperemic, and contained blood-tinged contents. The colon was markedly dilated and flaccid with a diameter of approximately 7 cm. The adrenal glands had a thin cortex. Upon examination of the elbow and hock joints, the right and left humerus had mild areas of roughening on the medial trochlear ridge. The left and right femoral head had a focal area of erosion. Upon examination of the spinal cord and vertebral canal, there was disc herniation in the regions of L1-L2, L3-L4, and L7-C1. Regions were characterized by protrusion of nucleus pulposus into the vertebral canal. In the more severely affected region (L3-L4), extruded material was white and markedly friable. There were no other significant gross findings. On gross examination there was no evidence of elbow or hip dysplasia.

*DENOTES ADDITIONAL TEST RESULTS
MSU IS AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY INSTITUTION

Case Number: 3119960

GROSS DIAGNOSIS

Intervertebral disc disease, L1-L2, L3-L4, and L7-C1.

Stomach: moderate, multifocal ulcerative gastritis; megacolon.

Comments: Gross findings were consistent with intervertebral disc disease at L1-L2, L3-L4, and L7-C1. In addition, there was also megacolon and an ulcerative gastritis. There was no evidence of neoplasia or hip dysplasia. There were no gross lesions identified which would explain the acute demise of this animal. Representative samples of internal organs, brain, and spinal cord were submitted for histopathology.

As of June 29, 2005, tests are pending in the laboratory sections checked below:

Bacteriology	Virology/Serology	Nutrition
Toxicology	x Histopathology	Clinical Pathology
Parasitology	Other	

SPECIMEN: FIXED TISSUES

HISTOPATHOLOGIC EXAMINATION

Sections of heart, lung, spleen, small intestine, stomach, large intestine, kidney, brain, spinal cord, liver, pancreas, thyroid, parathyroid, ovary, and bladder were examined histologically. Multiple sections of spinal cord were examined histologically. Within sections of spinal cord and adjacent nerves there was a mild demyelinating myelopathy and neuropathy. There was multifocal axonal swelling, spongiosis and a mild gitter cell infiltrate within digestion chambers. Within the lumbosacral region spinal nerves were variable sized with mild vacuolation and a mild gitter cell infiltrate. Within sections of lung there were multifocal lymphoplasmacytic inflammatory infiltrates and mild alveolar histiocytosis. There were multifocal aggregates of lymphocytes and plasma cell randomly dispersed throughout the pulmonary parenchyma. There were also mild numbers of alveolar histiocytes. Peribronchiolar histiocyte aggregates often contained intracytoplasmic black granular pigment most consistent with carbon. Within sections of stomach there was a focally extensive ulcerative gastritis. There was a focally extensive area of mucosal loss with a sharp line of demarcation separating areas of viable mucosa. Within sections of colon there was diffuse mucosal autolysis and numerous mucosal fibrin thrombi. Mucosal blood vessels were partially or completely occluded by organizing fibrin. Within sections of liver there was mild to moderate vacuolar hepatopathy. Focally extensive areas of hepatocytes had a reticulated, lacy cytoplasm. Areas were accompanied by multifocal aggregates of hypersegmented neutrophils. This vacuolation was most consistent with glycogen. There was also mild to moderate intrahepatic cholestasis. There was also mild multifocal hemosiderosis and mild centrilobular fibrosis. Within sections of pancreas there was a focally extensive area of intralobular hemorrhage. Within sections of spleen there was mild hemosiderosis. There were no other significant histologic findings.

*DENOTES ADDITIONAL TEST RESULTS
MSU IS AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY INSTITUTION

CONCLUSION

- 1) Spinal cord: mild demyelinating myelopathy and spinal neuropathy.
- 2) Stomach: focally extensive ulcerative gastritis.
- 3) Colon: vascular thrombosis.
- 4) Liver: mild vacuolar hepatopathy.

COMMENTS:

Histologic findings within sections of spinal cord are consistent with lesions secondary to intervertebral disk disease. Degenerative neuropathy may be due to impingement of the spinal cord by disk material protruding into the vertebral canal. Histologic findings of ulcerative gastritis support gross findings. Vascular thrombosis within sections of colon may suggest areas of devitalization that may have been the result of the markedly distended colon (megacolon) noted on gross examination. Colonic mucosal devitalization most likely resulted in systemic toxemia and death. Glycogen accumulation within sections of liver is commonly associated with steroid administration (steroid hepatopathy).

Schantel A. Hayes Pathologist/Resident	(517) 353-5275
Thomas P. Mullaney Pathologist	(517) 353-5275

sjr/nlt

***** CLIENT NEWS *****

We have been informed that shipments of reagents for free T4 dialysis (fT4d) will resume after July 4, 2005. Requests for premium thyroid profiles and fT4d will be ordered on samples received on July 5th and thereafter. Reagents for PTHrP, endogenous ACTH, and IGF-1 assays remain on hold with no estimate from the manufacturer as to availability. Our inventory of reagents for ACTH and IGF-1 is limited and we hope to continue offering assays through July. At present, we are not able to perform PTHrP assays. Thank you again for your patience and understanding in this situation.

Kent Refsal, DVM PhD, Endocrine Section Chief

*DENOTES ADDITIONAL TEST RESULTS
 MSU IS AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY INSTITUTION