



Guelph, Ontario, N1H 6R8  
Telephone: (519) 824-4120 ext. 54501 Fax: (519) 821-8072

Laboratory Services  
Animal Health Laboratory, Guelph

Case#: 07-26978 REPORT  
Clinic#: 003456  
Owner#: ID: LOPIZZO, MARION

HOLLAND LANDING AN. HOSP.  
19455 YONGE STREET

LOPIZZO, MARION

HOLLAND LANDING, ON L9N 1P2

L3Y 4W1

(905) 853-3591

Sampled Date:	Species: German Shepherd
Received Date: 07/04/30	
At risk: 0 Sick: 0 Dead: 0 Age: 9 Week Sex: M	
REPORTS: Date Time Sent To Workarea/Comment	
Fax 07/05/04 1:06 PM 003456 Gross pathology	
Fax 07/05/10 2:00 PM 003456 Histopathology	
Fax 07/06/01 7:32 AM 003456 Case Invoice-Final Report	

Note to owners: The AHL provides specialized diagnostic services to support your veterinarian, and has reported to your veterinarian as noted in the "REPORTS" record above. For interpretation of this report, please contact your veterinarian. The AHL does not give treatment or management recommendations; your own veterinarian is best placed to give such advice.

HISTORY:

Rec'd 1 dog for post mortem  
Euthanized with Euthanol Apr. 24/07 T: 10 a.m.  
Hind quarter - ataxia  
Puppy was clinically normal Apr. 14th - on the 15th owner accidentally stepped on one of the pups (possibly this one?)  
On the 17th they were presented for 1st vaccines and ataxia was noted. Short course of Dexamethazone orally - some minor improvement in ataxia.  
X - ray on Apr. 27th revealed spiral vertebral fx? and owner elected PTS. White German Shepherd Society wants PM to rule out generic defect.

GROSS PATHOLOGY

Gross Pathology Report: 07/05/04

Necropsy performed by Dr. B. McEwen May 1/07 T: 14:30 - 15:20  
Body Wt. 7.5 kg.

EXTERNAL FINDINGS:

Puppy and radiographs submitted.

Body condition: good. Hydration normal. Fat stores normal. Muscle mass normal.

INTERNAL FINDINGS:

The costochondral junctions were prominent. The lungs were mildly congested and edematous. The stomach contained approx. 400 ml of ingesta and had rotated 90 degree clockwise. The spleen was

congested.

Lumbar vertebrae #4 was deformed: The vertebral body was triangular with a dorsal apex and a large base of cancellous bone. The underlying spinal cord is narrow dorsoventrally and compressed. Photos taken.

No abnormal findings in other viscera, femur, brain.

Tentative Diagnosis: 1) Lumbar Vertebral Malformation  
2) Focal Myelomalacia

Comment: The vertebral lesions are consistent with the clinical radiographs. Histopathology is pending as per your request.

Tissues held: urine, liver, kidney, spleen, brain, lung

**HISTOPATHOLOGY**

Histopathology Report: 07/05/10

**LUMBAR VERTEBRA:** Further dissection of the 4th lumbar vertebra (L4) demonstrated marked protrusion of the vertebral body dorsally, into the spinal canal. Histologically, there is marked thickening of the anterior cartilage of L4 and the anterior ossification centre is absent. Several small, irregular and fenestrated cartilage trabeculae traverse the vertebral body. There is a narrow focus of degeneration and necrosis of bone from the mid-point of the vertebra ventrally. The ventral portion of the vertebral body consists of excessive cartilage. A small amount of fibrin is present between the anterior portion of L4 and the posterior aspect of L3. There is also marked thickening of the cartilage in the posterior ossification centre of L3.

Significant lesions are not evident in the ribs.

**PRELIMINARY INTERPRETATION:**

The histological sections are consistent with gross and radiographic appearances of the malformed lumbar vertebra. This is consistent with "Hemivertebra", which is inherited as an autosomal recessive trait in German Shepherd dogs. For further information on this condition please see the PEI website:  
<http://www.upei.ca/cidd/intro.htm>. Further sections are pending.

There is evidence of acute trauma within the vertebra and between L3 and L4, which would correlate with the history. However, the degree of spinal cord compression due to the anomaly was severe and would have soon resulted in neurological dysfunction.

**ADDITIONAL HISTOLOGY:**

**LUNG:** The lung is moderately edematous and alveolar macrophages are present within some alveoli special stains for iron/hemosiderin are pending.

**KIDNEY:** Acute moderate multifocal hemorrhage is present in the subcapsular renal cortex of one kidney is thought to it is or as long. Instead research low fat sections of of skin and it is that have alopecia or crusts are or scaling and the primary lesions latency.

**SPLEEN:** The spleen is congested.

Significant lesions are not evident in the following tissues: brain, small intestines, stomach, urinary bladder, skeletal muscle, peripheral nerve, adrenal gland, esophagus, large intestine, lymph node, thymus, tonsil, pancreas, thyroid glands, parathyroid gland, lung, liver, heart. Tissues are variably autolysed.

ADDITIONAL SECTIONS OF SPINAL CORD:

The cord is distorted in part due to autolysis and there is abundant autolytic artefact present. There are few spheroids, a moderate number of reactive astrocytes, mild microgliosis and a single digestion chamber noted.

HISTOLOGICAL DIAGNOSIS and COMMENTS:

- 1. Hemivertebra
- 2. Mild Focal Myelopathy, Lumbar Cord

The lesions in the spinal cord are milder than expected, however, there is also considerable autolysis, which may mask subtle changes. There is evidence of mild degenerative myelopathy, which was likely induced by trauma to the hemivertbra which impinged on the cord.

FINAL DIAGNOSIS:

HEMIVERTEBRA  
MILD DEGENERATIVE MYELOPATHY

Please refer to above comments. This is the final report.

Pathologist:

Beverly McEwen, DVM PhD DiplACVP (519) 824-4120 ext. 54537

\*\*\* THIS IS AN INVOICE FOR SERVICES RENDERED \*\*\*

INVOICE DETAILS for Case #: 07-26978  
BILL TO: 003456 - HOLLAND LANDING AN. HOSP.  
CLINIC - 003456 - HOLLAND LANDING AN. HOSP.  
OWNER - - LOPIZZO, MARION

TEST	UNITS	CHARGE
Post Mortem	1	\$ 195.00
Histology (non food)	1	\$ 54.00
Histology slides (companion)	4	\$ 0.00
INVOICE TOTAL		\$ 249.00

If paying by invoice rather than by statement, please make your cheque payable to the "University of Guelph" and send, with a copy of this invoice, to: University of Guelph, Attention: Financial Officer, 95 Stone Rd. W., Guelph, Ont. N1H 8J7. If you have any billing enquiries or are paying by credit card, please call (519) 767-6207.

\*\* U of G clients will have J/E done by AHL.

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