

# UNIVERSITY OF MINNESOTA

## Veterinary Diagnostic Laboratory College of Veterinary Medicine

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Accession Number: D06-019097

Owner: GRUMDAHL, JUDY  
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**Veterinarian:**

Cash Paying Client  
Veterinary Diagnostic Laboratory  
1333 Gortner Avenue  
St. Paul, MN 55108

**Site:**

Received: 04/10/2006  
Reference: "LILY"  
Species: Canine  
Breed: German Shepherd (white)  
Age: 8 y  
Sex: FS  
Weight: 41 kg

**History:** On 04/07/06 hind limb paresis, swaying, falling. Euthanasia on 04/10/06, 0830 h.

**Necropsy:** A 41 kg, white, female spayed, German Shepherd dog is necropsied on 04/10/06. Post mortem condition is moderate. Body condition is good with adequate musculing and ample adipose stores.

**Integument:** Nails of the 3rd and 4th digits of the hind paws are worn down and alopecic, cutaneous calluses are on the dorsal aspect of the 4th and 5th digits of the right hind paw. Cutaneous calluses also occur bilaterally in the lateral cubital region. On opening of the abdominal cavity, remnants of suture material are found in the subcutis along the linea alba.

**Oral cavity:** The buccal surfaces of the upper molars have mild calculus. The crowns of the upper canine teeth are worn on the distal and occlusal surfaces.

**Musculoskeletal apparatus:** Smooth osseous protrusions extend from the ventral surfaces of L2 and L3 as well as L3 and L4 to result in ventral bridging of L2 with L3 and L3 with L4. On sagittal section through the vertebral column, no lesions are seen in the intervertebral disks between the affected vertebrae, nor between any other vertebrae.

No significant gross lesions are seen in brain, spinal canal, eyes, thyroid gland, larynx, trachea, esophagus, heart, lungs (congestion and edema), spleen, liver, pancreas, gastrointestinal tract, adrenal glands, kidney, urinary bladder or bone marrow

**Histopathology: Spinal cord:** There is mild, multifocally and randomly disseminated distension of myelin sheaths with occasional gitter cells throughout the sections representing cervical, thoracic and lumbar segments. Likewise, ventral and dorsal nerve roots have scattered loss of axons with associated distensions of the myelin sheaths.

**Parathyroid glands:** External parathyroid glands are enlarged to approximately 5 x 2 mm by chief cell hyperplasia and hypertrophy.

No significant lesions are seen in sections of eye (OS), brain, pituitary gland, tonsil, thyroid gland, lungs (congestion), spleen (congestion), liver (congestion), pancreas, stomach, small intestine, large intestine, mesenteric lymph node, adrenal glands, kidney (calcium precipitates in some papillary ducts) or bone marrow

**Diagnosis: Gross** (04/14/06)1. Ankylosing spondylosis, L2/L3 and L3/L4

**Microscopic** (05/01/06)1. Myelin degeneration, multifocal, chronic, mild

**Comment:** A gross morphologic correlate explaining the reported hind limb paresis is not evident.

Histologically, myelin degeneration without preference of specific funiculi may explain the reported hind limb paresis, even though lesions are mild. A specific cause or underlying process explaining myelin degeneration is not detected, but multifocal compression might account for this type of lesion and distribution.

**Work pending:** None

Patrick Caplazi, DVM, PhD, Diplomate ACVP

**--Report--**

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