

What's Your Diagnosis?

By: Rebecca Whitlock

Class of 2018

Signalment:

Charlie: 9yo FS Dachshund

Presenting Complaint:

Fell off the couch and has not been able to use hind legs since.

History:

Charlie fell off the owner's couch and was unable to use her hind legs. The referring veterinarian prescribed prednisolone 10 mg twice a day over a 24 hour period and performed cold laser treatment on the thoracolumbar region. Charlie was referred after no improvement from prednisolone.

PE Findings:

Temperature: 101.4 F, Pulse: strong, Heart Rate: 140 bpm, Respiratory Rate: 64 bpm, Weight: 4.7 kg, Temperament: Bright Alert Responsive, Mucous Membranes: pink, Capillary Refill Time: <2 seconds. There was nuclear sclerosis, iris atrophy, and dental tartar noted upon physical exam.

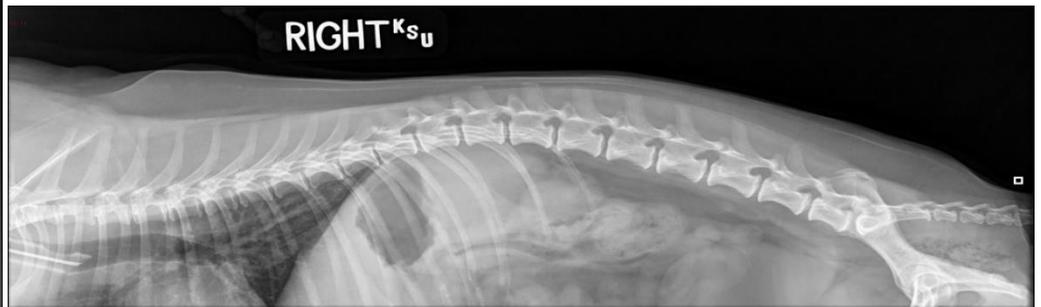
Neurological examination upon presentation consisted of the following:

Neurological Exam	Right Hind	Left Hind
Conscious Proprioception	Decreased	Decreased
Withdrawal Reflex	Decreased	Decreased
Deep Pain	Present	Present
Patellar Reflex	Hyperreflexive	Normoreflexive
Gastrocnemius Muscle Reflex	Hyperreflexive	Normoreflexive
Cranial Tibial Muscle Reflex	Hyperreflexive	Normoreflexive

Diagnostic Plan:

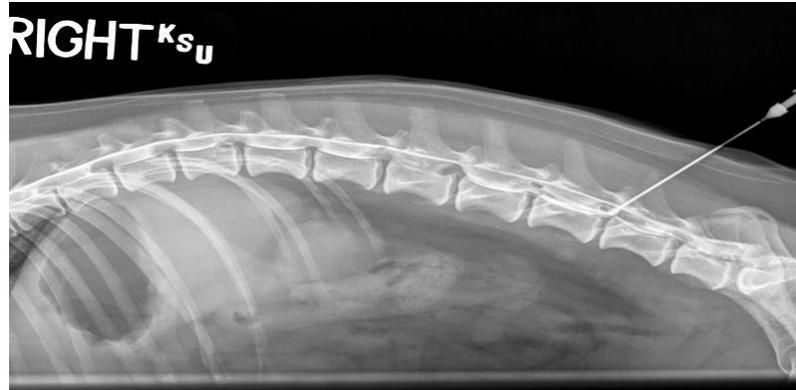
Stabilize: provide fluids, pain medication and physical support.

Radiographs:



Radiographic Findings: There are two circular gas opacities within the soft tissue of the lumbar spine at the junction of L2-L3 and L3-L4. There are no detectable spinal lesions on survey radiographs. The scapula, ribs, vertebra, pelvis, and proximal femurs are within normal limits. There is endotracheal tube present in the trachea spanning to the second ribs. The remaining trachea, lung parenchyma, and cardiac silhouette are within normal limits. The diaphragm, liver, stomach, kidneys, spleen, gastrointestinal system and urinary bladder are all within normal limits.

Myelogram:



Myelogram Findings: At the intervertebral space of L5-L6, 1.6 ml of iohexol 300 mg/ml was injected into the subarachnoid space using a 22 gauge, 1.5" spinal needle. The positive contrast medium extended up to the junction of T5-T6. There are three small, oblong gas opacities present in the soft tissue of the lumbar spine at the L2-L3, L4-L5, and L5-L6. At L3-L4 there is a decrease in positive contrast medium on the right spinal column. This area is irregular in shape and displaces dorsally and to the left of the spinal column.

Conclusions:

The gas/fluid opacities within the soft tissues of the spinal cord are likely due to the myelogram procedure and are not of concern. The attenuation of contrast at L3-L4 junction and displacement to the left is due to extradural compression. Differentials for the ventral and right extradural lesion include: intervertebral disc disease, tumor, stenosis, abscess, and hemorrhage with IVDD being the highest suspect.

Follow up:

Charlie underwent surgery to correct her intervertebral disc herniation. Following surgery, Charlie was placed on codeine at 1.6 mg/kg (1/2 tablet of 15 mg tablet) every eight hours by mouth. Charlie was also placed on gabapentin at 60 mg/ml (0.8 ml) every eight hours by mouth. She was discharged and given strict instructions of cage rest for eight weeks, to be carried outside to go the bathroom, keep incision site clean, support her back,

and monitor her mentation and pain. Following surgery, Charlie was able to stand on her hind legs, but unable to walk. She was later discharged to her owners.

Discussion:

With a spinal cord lesion at L3-L4 with the right side being more affected, these are the neurological exam findings I would expect:

- Cranial nerves intact and normal.
- Forelimb reflexes intact and normal.
- Back pain observed.
- Panniculus reflex intact cranial to L3. At L3 the panniculus reflex would be substantially reduced or absent.
- Hind limb use decreased in left hind limb to absent in the right hind limb, will see dragging of the metatarsus.
- Decreased conscious proprioception in hind limbs with right hind limb being more affected.
- Withdrawal reflex decreased to absent in the right hind limb and decreased in the left hind limb.
- Crossed-extensor reflex positive in right hind limb and negative in left hind limb
- Perineal reflex would be intact
- Deep pain response absent in right hind limb and delayed to absent in the left hind limb
- Upper motor neuron signs will be observed in the hind limbs along with an upper motor neuron bladder

This lesion is likely to be a Type 1 disc disease that is most commonly seen in chondrodystrophic breeds. It is described as an acute herniation of degenerate nuclear material into the vertebral canal in which the spinal cord is compressed. If owners are able to afford surgery, I recommend for that to take place. If surgery wasn't an option or the owner's elected not to proceed with surgery, I recommend strict cage rest with NSAIDs and a follow up with the veterinarian to evaluate progress.