

MRI imaging allows one to see the spinal cord without the obstruction of overlying anatomy (radiographs) or beam hardening artifacts from the surrounding bone (CT) allowing subtle lesions to be visualized more easily.

Occult Spinal Trauma

Case Summary: An 8yr MN Labrador Retriever presented for MRI of the thoracic and lumbar spine to identify the cause of a three-week history of progressive right rear limb paresis and pelvic limb ataxia. No other health problems were reported. Owners reported a possible trauma at the time of the onset in which the pet chased a raccoon under a car and got caught. The patient responded with mild discomfort on mid thoracolumbar spinal palpation. The pet's condition improved when anti-inflammatory therapy was initiated. The patient was bearing more weight on his left rear leg with his right rear leg slightly abducted. CP deficits were present in the right rear leg.

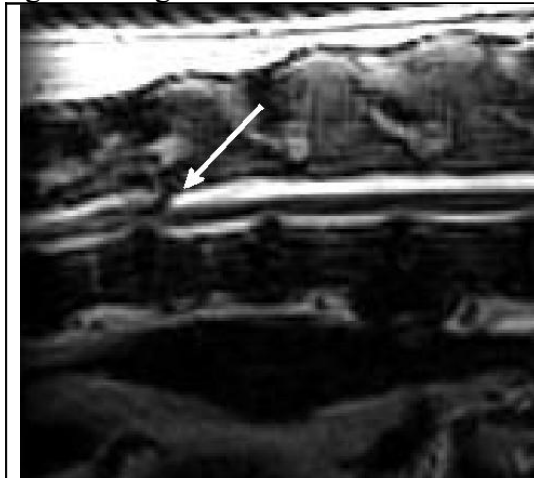


Figure 1: Sagittal T2w (myelo) image showing narrowing of the spinal canal (arrow)

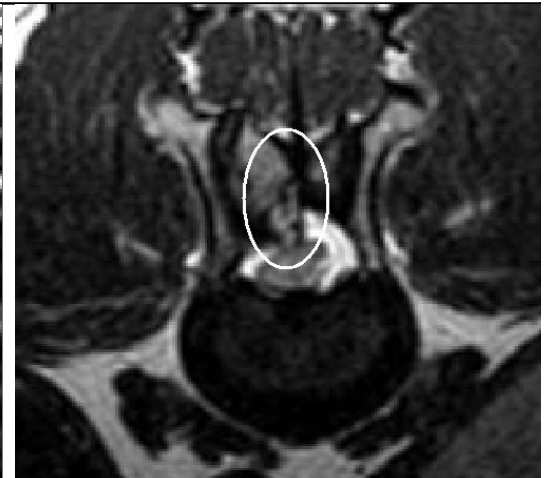


Figure 2: Axial T2w image showing bony protrusion causing compression of the right side of the spinal cord (circled area)

Findings: Sagittal images revealed a narrowing of the T12-13 IV disc space. Axial images through this affected area reveal what appears to be a portion of bone protruding from the right caudal articular facet of T12. This protruding bone is causing an alteration in the cord shape and near complete loss of signal from the surrounding cerebrospinal fluid and epidural fat on the right side. There was minimal enhancement of the margins of the suspected bone segment on post contrast T1w images

Imaging Diagnosis: Right sided spinal cord compression at T12-13 secondary to an apparent osseous projection secondary to degenerative joint disease or a previous fracture associated with the caudal right articular facet of T12. Much less likely differentials include granulomatous disease or benign neoplasia of the bone.

Outcome: This patient had surgery to remove the bone fragment protruding into the spinal canal to alleviate the spinal cord compression. The clinical signs

resolved nearly completely over several weeks after surgery.

*Please do not hesitate to contact our facility to discuss the value of a CT or MRI study for a particular patient prior to requesting an imaging study.
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