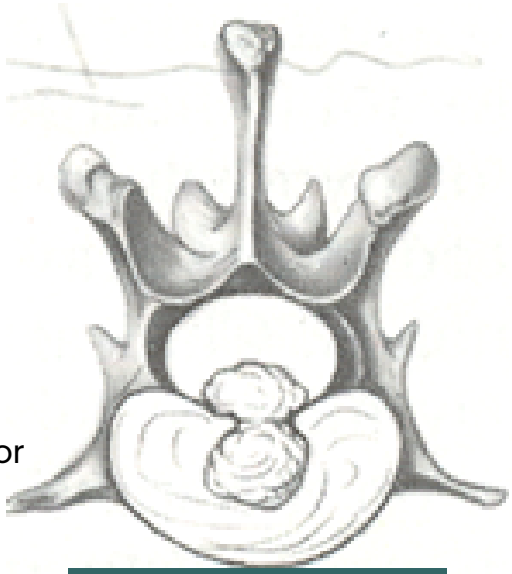
T-L Intervertebral Disc Herniation

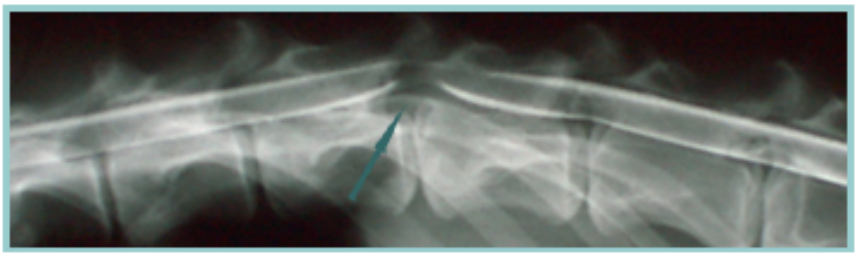
Intervertebral disc disease is the most common neurologic disorder diagnosed in veterinary patients. Thoraco-Lumbar disc disease accounts for about 85% of all canine disc herniations. The intervertebral disc functions as a shock absorber in between each vertebral body (individual bones of the spine). The disc is made of 2 components, an outer fibrous shell (annulus fibrosis) and a gelatinous center (nucleus pulposus). Herniation of the disc commonly occurs in one of two ways. The annulus can rupture extruding the gelatinous center into the spinal canal (referred to as a Hansen type I) or the annulus can hypertrophy or thicken and compress the spinal cord (referred to as a Hansen type II). In general Hansen type I extrusions are more common in smaller breeds, while Hansen type II herniations are more common in larger breeds.



Hansen Type I

Clinical Signs Disc herniations in the T-L region are generally acute in onset and the clinical signs can range from back pain, to hindlimb ataxia (stumbling and difficulty walking) in the rear limbs to rear limb paralysis. Patients often experience an acute episode of back pain and then deteriorate neurologically over the next few hours to days. The speed of deterioration, neurologic status at presentation and duration of time the signs have been present are all important factors in determining the ultimate prognosis.

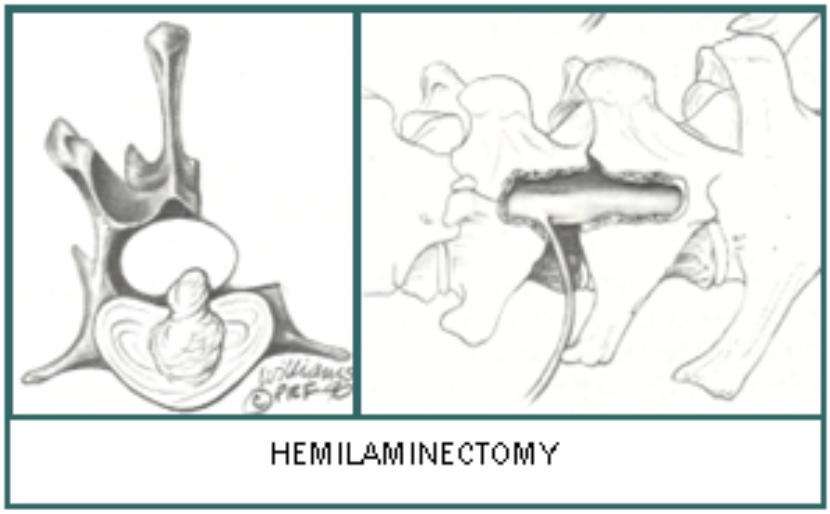
Diagnosis Plain radiographs (X-rays) may be helpful for diagnosing disc herniations, however not usually completely diagnostic. An MRI or myelogram, (contrast study) outlining the spinal canal, is generally required to visualize a herniated disc, identify the disc space affected, assess the degree of spinal cord compression and potentially rule out other forms of spinal cord compression not associated with disc herniation.



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Conservative Treatment Treatment options for disc herniations are often dictated by the patients history and presenting neurologic status. Patients presenting for mild pain or lameness may respond to conservative management. This is comprised of strict cage confinement for at least 4 weeks, anti-inflammatory drugs and muscle relaxants. Patients treated conservatively often have recurrence of their clinical signs in the future. Dogs presenting with intractable pain, neurologic deficits or recurrence following conservative treatment are candidates for surgical management.

Surgical Management The aim of surgery is to remove the disc herniation, eliminate spinal cord compression and allow room for the spinal cord to swell which is a normal part of the healing process. For herniations in the thoracic and lumbar spine a Hemilaminectomy is performed where a portion of the top of the vertebrae is removed. Once access to the vertebral canal is gained, the herniated disc material can be removed.



Prognosis The outcome following surgical repair is variable based on the severity of clinical signs on presentation. Dogs presenting with pain alone as a clinical sign should show considerable improvement within a few days. In patients with neurologic deficits, it may take several weeks to regain function. Despite the proximity of vital neurologic structures, surgical complications are rare and the overall prognosis