



**NEUROLOGY:
LUMBOSACRAL DISEASE**

**How to recognize
Lumbosacral Disease?**

Lumbosacral disease can be a challenge to diagnose, as clinical signs may resemble those seen in a number of pelvic musculoskeletal conditions. Signs to watch for include: an arched back, discomfort in the spine, pain upon palpation of the lumbosacral area, paresis of the pelvic limbs and pelvic limb ataxia. Lateralization of the neurological signs is frequent, with one pelvic limb worse than the other. The patient may knuckle over with the hind feet, cross the hind legs under the body, and/or abduct the pelvic limbs widely, and plantar walking is frequently seen. The postural reactions (proprioceptive positioning, hopping, hemiwalking, placing, and extensor thrust reactions) may also be delayed in the pelvic limbs. Tail hypotonia and decreased anal tone (evaluated at rectal palpation) as well as fecal and urinary incontinence are frequent signs. In addition to muscle atrophy in the rear limbs flexor reflexes are generally depressed in the pelvic limbs.

Testing

The lesion predominantly involves the spinal cord segments, nerve roots, or spinal nerves of L6, L7, and S1 to S3. These anatomical structures are generally located between the fifth or sixth lumbar vertebrae and the sacrum. Nerve root entrapment and compression can result from arthritic processes, infection, degenerative disc rupture, or tumors. Documentation of nerve compression requires myelography, preferentially CT or MRI and occasionally electromyography (EMG) and nerve conduction velocity (NCV) studies of the tail, perineal region and pelvic limbs may be of value in substantiating the diagnosis and the severity and symmetry of nerve root entrapment.

Treatment

Treatment with rest, anti-inflammatory medications and analgesics may be attempted with an initial presentation of only mild pain. Surgical intervention is indicated, and is often successful in cases with recurrent pain and/or neurological deficits.

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The Neurology department at Michigan Veterinary Specialists is available for questions and consultations on neurological conditions and is on-call, along with MVS surgeons, for neurological cases requiring emergency surgical intervention. Please call (248) 354-6660.

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