

Caudal Cervical Spondylopathy (Wobbler Syndrome)

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BASIC INFORMATION

Description

Caudal cervical spondylopathy (also called *cervical vertebral malformation-malarticulation* or *wobbler syndrome*) is a disorder that results in spinal cord compression due to instability of the spine. The spinal cord compression can be dynamic, which means the compression is worse when the neck is held in certain positions. The syndrome is most common in large- and giant-breed dogs.

Causes

Although the cause of wobbler syndrome is unknown, many factors may be involved. Compression may occur from bony malformation of the vertebrae, intervertebral disc herniation, or thickening of the supporting ligaments of the spine. The Doberman pinscher and Great Dane are the breeds most commonly affected. Great Danes are often affected before 2 years of age, whereas Dobermans are more commonly affected from 3-9 years of age.

Clinical Signs

Signs depend on the speed of onset, duration, and degree of compression. Signs may develop suddenly over a few days or slowly over weeks to months. Typically, all four legs are affected because the problem involves the neck region. Occasionally, signs begin in the hind legs, but over time the disease usually affects all four legs. Neurologic abnormalities depend on the severity of spinal cord compression:

- Mild compression may result in neck pain only.
- More severe compression causes an uncoordinated (“wobbly”) gait in all four legs, crossing over of the legs when walking, toe scuffing, and weakness. The hind legs are often more affected than the front legs.
- As compression worsens, the animal may be unable to walk or may become paralyzed.

Diagnostic Tests

The syndrome initially is suspected based on the history and clinical signs. X-rays of the neck may show degenerative changes in the spine; however, they cannot demonstrate spinal cord compression. Advanced imaging of the spine, such as magnetic resonance imaging (MRI), computed tomography (CT scan), or myelography (x-rays taken after a dye is injected into the space around the spinal cord) is necessary for the diagnosis. MRI provides the most detailed evaluation of the spinal cord and spine. Images may be obtained with the neck held in several positions. Your veterinarian may also recommend laboratory tests to rule out diseases that cause similar signs.

TREATMENT AND FOLLOW-UP

Treatment Options

Conservative and surgical treatment options exist for dogs with wobbler syndrome. Conservative therapy is reserved for animals with pain and/or mild neurologic abnormalities and consists of exercise restriction, anti-inflammatory drugs, and pain medications.

- Exercise restriction involves strict confinement and limited leash walking, for the sake of urination and defecation only.
- Dogs should not be allowed to run, jump, or play during the period of confinement.
- Exercise restriction typically lasts 4-6 weeks and is followed by gradual return to normal activity over an additional month.
- Anti-inflammatory drugs, such as nonsteroidal anti-inflammatory medications or short-term corticosteroids, can be used, but they are not used together because of their combined side effects.

Surgery is often preferred for dogs with severe neurologic signs, such as moderate to severe incoordination, weakness, inability to walk, and paralysis, and for dogs with pain that is unresponsive to conservative treatment. Surgery may also be considered in dogs that have recurrent signs. Surgery may involve removal of herniated intervertebral disc material (common in the Doberman pinscher). It may also involve removal of various portions of the vertebrae that are compressing the spinal cord and spinal stabilization (fusion). Various techniques can be used to stabilize the spine. After surgery, conservative therapy is also usually started.

Follow-up Care

Initially, repeated neurologic examinations are often performed to monitor for improvement in clinical signs. These examinations can be performed daily if the dog is hospitalized or periodically during outpatient visits. Visits are often repeated every 1-2 weeks initially and then decreased to every 1-2 months if improvement is observed. Long-term follow-up is frequently needed. Notify your veterinarian if any signs worsen or recur.

Prognosis

Prognosis depends on the severity and duration of the clinical signs. Mildly affected dogs and dogs that have pain as the only clinical sign often respond well to conservative therapy. Many dogs with moderate to severe clinical signs improve after surgical therapy. Resolution of clinical signs may take weeks to months. Prognosis is worse for dogs with severe neurologic signs and for dogs with multiple areas of compression of the spinal cord. Dogs with severe clinical signs have a very poor (guarded) prognosis even with surgery. Clinical signs may recur in dogs managed both conservatively and surgically.