

Wobbler Syndrome

(Cervical Spondylomyelopathy)

Basics

OVERVIEW

- “Wobbler syndrome” (also known as “cervical spondylomyelopathy”) is a disease of the neck (cervical spine) of large- and giant-breed dogs
- Wobbler syndrome is characterized by compression of the spinal cord and/or nerve roots, which leads to nervous system deficits and/or neck pain
- The spine is composed of multiple bones with disks (intervertebral disks) located in between adjacent bones (vertebrae); the disks act as shock absorbers and allow movement of the spine; the vertebrae are named according to their location—cervical vertebrae are located in the neck and are numbered as cervical vertebrae one through seven or C1–C7

GENETICS

- Genetic basis proposed for the borzoi and basset hound
- No definitive data regarding inheritance of wobbler syndrome in Doberman pinschers

SIGNALMENT/DESCRIPTION OF PET

Species

- Dogs

Breed Predispositions

- Doberman pinschers are affected most commonly, with 50% of the cases seen in this breed
- Other breeds with a high incidence of wobbler syndrome include the Great Dane, rottweiler, Weimaraner, and Dalmatian
- Wobbler syndrome may be seen in any canine breed, including small-breed dogs

Mean Age and Range

- Doberman pinschers and other large-breed dogs usually are presented to the veterinarian for clinical signs when they are over 3 years of age, with a mean age of 6 years
- Giant-breed dogs usually are presented when they are less than 3 years of age, although signs can develop later in life

Predominant Sex

- Males are slightly more likely to have wobbler syndrome than are females

SIGNS/OBSERVED CHANGES IN THE PET

- The classic clinical presentation is a slowly progressive, wobbly, incoordinated or “drunken”-appearing gait or movement (known as “ataxia”) of the rear legs, with less severe involvement of the front legs
- Sudden (acute) neck pain



- Weakness (known as “paresis”)
- Long-term (chronic), slowly progressive abnormal gait
- Front leg gait can appear to be shortened, with a floating appearance, or very weak
- Dogs may be unable to walk (known as being “non-ambulatory”)
- Loss of muscle mass of the shoulder (known as “supraspinatus muscle atrophy”) and worn toenails can be seen in some pets

CAUSES

- Nutrition—excess protein, calcium and caloric intake were proposed as causes in Great Danes; nutrition does not appear to play a role in the development of wobbler syndrome in large-breed dogs
- Multiple factors likely are involved in the cause of wobbler syndrome

RISK FACTORS

- Body conformation—large head and long neck have been proposed, but later studies found no correlation between body dimensions and wobbler syndrome
- Fast growth rate has been proposed but not confirmed

Treatment

HEALTH CARE

- Inpatient, if surgical treatment is elected
- Outpatient, if medical management is chosen as the treatment
- Dogs that cannot walk (non-ambulatory dogs)—keep pets on soft bedding and turn every 4 hours to avoid “bed sores” (known as “decubital ulcers”); empty the bladder on a routine schedule; physiotherapy is essential to avoid loss of muscle mass (muscle atrophy) and stiffening of the joints (known as “ankylosis”), and to hasten recovery

ACTIVITY

- Medically treated dogs should have restricted activity for at least 2 months
- Restriction of activity is important for the first 2 or 3 months following surgery to allow fusing of the backbones (vertebrae) at the site of surgery

DIET

- Avoid excess protein, calcium or caloric intake in giant-breed dogs

SURGERY

- Various surgical procedures have been performed in treating wobbler syndrome
- Recurrence rate is approximately 20% with any surgical technique

Medications

Medications presented in this section are intended to provide general information about possible treatment. The treatment for a particular condition may evolve as medical advances are made; therefore, the medications should not be considered as all inclusive

- Steroids—dexamethasone initially; followed by a gradually decreasing dose of prednisone, as directed by your pet's veterinarian
- Nonsteroidal anti-inflammatory drugs (NSAIDs) can be used in dogs with only increased sensitivity to touch involving the neck (known as “cervical hyperesthesia”) or a slight wobbly, incoordinated or “drunken”-appearing gait or movement (ataxia)

Follow-Up Care

PATIENT MONITORING

- Repeat the nervous system evaluation as often as needed to monitor response to treatment

PREVENTIONS AND AVOIDANCE

- Excessive activity, jumping, and running should be avoided

- Avoid use of collars placed around the neck; use a body harness

POSSIBLE COMPLICATIONS

- Seizures and transient nervous system deterioration can occur after special X-ray (radiograph) techniques in which a dye is injected into the spinal canal (procedure known as “myelography”) to allow visualization of the spinal cord
- Recurrence of clinical signs can occur in dogs treated medically or surgically

EXPECTED COURSE AND PROGNOSIS

- Approximately 80% of pets improve with surgery
- Approximately 50% of pets improve with medical treatment (restricted activity with or without steroids) and 25% remain stable

Key Points

- Surgery offers the best chance of improvement (approximately 80%), but a 1–5% risk of significant complications is associated with surgical procedures of the neck (cervical spine)