

Wobbler Syndrome

Surgery Service



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Locations

Auburn Hills

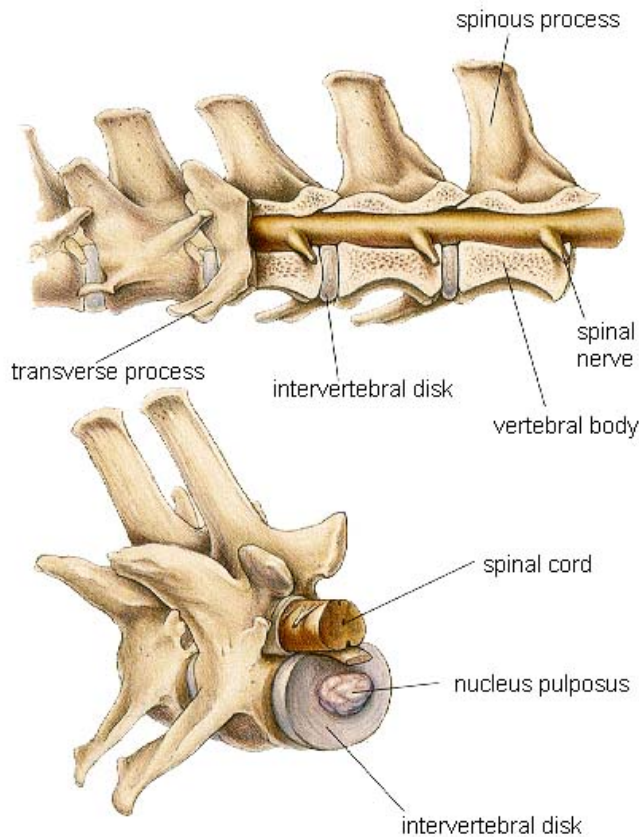
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Anatomy

The spine of the dog extends from the base of the skull and includes the neck, back, and the tail. The spine is made of many interlocking bones called vertebrae. A shock absorbing structure called the intervertebral disc is located between each vertebra, except for the first and second vertebrae located in the neck. The spinal cord runs through a large canal within the bones of the vertebrae. The spinal cord is similar to a telephone cable that has many wires, which transmits signals from the brain to control the internal organs and the muscles.

What is wobblers?

Wobbler syndrome, also called cervical spondylitic myelopathy, is a multifactorial disease that compresses the spinal cord in the neck. This results in damage and dysfunction of the spinal cord. Abnormalities of the spine that contribute to this condition include narrowing of the vertebral canal, protrusion of the intervertebral disc, thickening of the ligament located immediately beneath the spinal cord, partial dislocation of the neck bones, and thickening of the joints of the vertebrae. The compression of the spinal cord may be static meaning that flexion, extension or traction of the neck does not change the amount of compression on the spinal cord. Other cases have a dynamic compression of the spinal cord, meaning that the amount of compression on the spinal cord changes with movement of the neck (flexion, extension, and traction).

Signs and diagnosis

Adult Great Danes and Doberman Pinschers are the most commonly affected breeds. Clinical signs of wobblers include neck pain and weakness of the limbs. The dog may appear to be wobbly or drunk when walking. The forelimbs may be more severely affected than the hind limbs. Intermittent knuckling of the paws is common as the disease progresses.

The diagnosis of a wobbler syndrome is based on physical examination findings and diagnostic imaging tests. The neurologist will perform a myelogram, which involves injecting dye into the fluid column that surrounds the spinal cord. X-rays and a CT scan are used to reveal the

Wobbler Syndrome Continued...

region of compression on the spinal cord. A traction force is then applied to pull the neck bones slightly apart and then x-rays or a CT scan is repeated to see if the compression on the spinal cord is alleviated. MRI is another diagnostic test that may be used to diagnose the problem.

The day of surgery

Our anesthesia and surgical team will prescribe a pain management program, both during and after surgery that will keep your companion comfortable. This will include a combination of general anesthesia, injectable analgesics, epidural analgesia, oral analgesics, and anti-inflammatory medication.

Surgery

There are two types of surgery that are used for the wobbler patient. The type of surgery required is dependent on the results of imaging tests. If the compression of the spinal cord does not change with traction on the neck, then a dorsal laminectomy or a ventral slot surgery may be recommended. The dorsal laminectomy involves removal of the roof of the spinal canal (top of the vertebra) in the area of the spinal cord compression. The ventral slot involves removing some bone beneath the spinal cord along with scar tissue and protruding disc that may be compressing the spinal cord. If the patient has a dynamic compression of the spinal cord, the spine is distracted, a bone graft is placed within the affected disc space and the spine is stabilized with a locking plate or other surgical implants.

Home care

After surgery, you can continue to give your pet a prescribed pain reliever to minimize discomfort. The neurologist will monitor the healing process with a series of follow-up exams. At eight weeks after the surgery, x-rays will be made to evaluate the healing of the bones in the spine. If needed, subsequent x-rays will be made on a monthly basis until the bones have completely healed.

Results

The recovery following wobblers can be a lengthy process involving months of recovery. In addition, extended nursing care is required for many patients to bring them back to ambulatory function. One study of 104 cases of wobblers showed that 81% of those treated surgically had improved neurological function, 3% unchanged, and 16% worse than prior to surgery. Of those treated medically, 54% were improved, 27% were unchanged, and 19% had progressive worsening of their clinical condition. There was no difference in the survival times of either group (medical 46.5 months vs. surgical 48 months).

A new technique of fusion of the spine with bone graft and locking plate technology in 10 dogs resulted in an 80% successful outcome with no recurrence of clinical signs in 70% of the cases.

References

1. da Costa RC, Parent JM, Holmberg DL, et al. Outcome of medical and surgical treatment in dogs with cervical spondylomyelopathy: 104 cases (1988-2004). *J Am Vet Med Assoc* 2008;233:1284-1290.
2. Bergman RL, Levine JM, Coates JR, et al. Allograft for a one level fusion in dogs with cervical spondylotic myelopathy. *Vet Surg* 2008;37:530-536.



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Wobblers Syndrome Continued...

Assessment and recommendations

Patient name: _____

Date: _____

Treatment

- Surgery is recommended by an MVS surgeon
- Surgery is not recommended

The following has been prescribed

- No medications or special diet are necessary at this time
- Pain controlling medication: _____
- Nonsteroidal anti-inflammatory medication: _____
- Steroids: _____
- Antibiotics: _____
- Other medication: _____

Exercise

- Confine your pet to a crate and carry him/her outdoors for bowel movements and urination
- Confine your pet to the house other than very short leash walks necessary for bowel movements and urination

Preparation for surgery

- Start fasting your companion at midnight, before the surgery; water should not be withheld
- Pepcid AC 10 mg tablets: give _____ tablet(s) with water (use a syringe if needed) at 6 AM on the day of surgery

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