



## **DISK DISEASE, INTERVERTEBRAL Cervical**

**What is meant by Cervical Intervertebral Disk Disease?** The spine is made up of bony segments called vertebrae. The spinal disks, more properly called intervertebral disks, are located between the vertebrae and serve as shock absorbers and flexors for the spinal column. Each disk is made up of a fibrous outer ring called the annulus and an inner section called the nucleus, which is soft and jellylike in consistency. When a disk becomes diseased, either through gradual degeneration or injury, the weakened annulus gives way and bulges into the spinal canal. It may also rupture completely and force the contents of the nucleus into the canal. Resulting pressure on the spinal cord causes the signs of pain, weakness, incoordination or paralysis.

Cervical or neck, intervertebral disk disease is an age-related change within the intervertebral disk which can result in disk protrusion or extrusion. Intervertebral disk disease is classified as either Hansen type I or Hansen type II. Hansen type I disease involves cartilage degeneration of the disk, disk mineralization, and acute extrusion (3-6 years of age). Hansen type II disease involves gradual fibrous changes of the disk, with an insidious bulging or protrusion of the dorsal annulus (8-10 years of age). There is no known genetic basis for this disease, but breeds such as dachshund, beagle and Pekingese are predisposed to Hansen type I disease, while large breeds, especially the Doberman pinscher, are predisposed to Hansen type II disease.

### **What are the Symptoms Associated with This?**

The clinical signs of cervical disk disease are variable depending on the type of disk disease and the severity of disk extrusion. Based on the degree of disk extrusion, signs may include pain when the dog is picked up or when its neck is manipulated, failure to flex the neck to eat or drink, and failure to turn the head and neck to the right or left. Spasms of the neck and shoulder muscles may occur. If the

disk extrusion impinges on a nerve root, the dog may hold one front limb off the ground or limp. Paresis or paralysis of all four limbs may rarely occur, but is much less common than neck pain only.

### **How is It Diagnosed?**

The history, symptoms, and physical examination would make it suspect. Radiographs (x-rays) of the neck often reveal a narrowed, wedged-shaped disk space and other changes. With Hansen type I disease, mineralized disk material may be seen within the spinal canal. Contrast radiographs or myelography can be helpful in localizing which disc is protruding into the spinal canal. Likewise MRIs and CAT scans can be diagnostic in difficult cases. Cerebral fluid examination ("spinal tap") may be indicated in some cases.

### **How is It Treated?**

Medical treatment for intervertebral disk disease may relieve pain and inflammation, but surgery may be necessary to relieve cord pressure and prevent paralysis. Physical examination, x-rays, and nerve tests will help to determine the best course of treatment for your pet. Dogs with cervical disk disease can be broken down into three categories:

- 1) those with a first time episode of neck pain;
- 2) those with repeated episodes of neck pain;
- 3) those with neck pain plus neurologic deficits.

Dogs in the first category are usually treated as outpatients with medications to relieve the pain and inflammation. Muscle relaxants may also be indicated.

**ACTIVITY:** All dogs with disk disease should have reduced activity levels. Harnesses rather than collars should be used for leash walking and animals should be discouraged from any form of



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jumping. In cases with an initial episode of neck pain only, cage confinement for 2-4 weeks may alleviate signs and should be tried prior to surgical treatment.

**DIET:** All obese dogs should be placed on a reducing diet.

**SURGICAL CONSIDERATIONS:** Surgery is indicated for most animals with repeated episodes of neck pain and all animals with neurologic deficits.

### **What is the Long-term Prognosis?**

**POSSIBLE COMPLICATIONS:** Recurrence of neck pain with or without neurologic deficits is possible. Animals treated surgically may be less likely to have recurrences though. Catastrophic spinal cord compression almost never occurs with cervical disk disease.

**EXPECTED COURSE AND PROGNOSIS:** Some animals treated medically have recurrence and ultimately require surgery, while most animals treated surgically do not have recurrent episodes unless other disks become involved.

### **What do I Need to Do?**

1. **Medication:** Medication must be fitted to the particular needs of your pet. Follow the instructions checked.

( ) Give \_\_\_\_\_ tablets/capsules every \_\_\_\_\_ hours.

( ) Give \_\_\_\_\_, \_\_\_\_\_ times daily.

( ) Other: \_\_\_\_\_

2. **Diet:** Feed: \_\_\_\_\_  
Make water easily available and change frequently.

3. **Exercise:** Follow the instructions checked.

( ) Restrict as follows: \_\_\_\_\_

( ) No restrictions.

( ) Special exercises: \_\_\_\_\_

4. **Management:** Observe for regular bowel movements and urination. Provide a firm padded sleeping surface. Lift small dogs carefully so their

back and neck remains straight without excess tension on it (support them evenly from front to back). Confinement is very important. The spine will require approximately one month to heal, so restrict activity for that long — no jumping up or down off furniture or stairs. When they start feeling better they have the tendency to act normally. It is up to us to be sure they don't get too active early in the healing period.

### **Notify Us if Any of the Following Occurs:**

1. Your pet seems increasingly uncomfortable.
2. Your pet cannot lie down or continually braces himself/herself with front legs.
3. Your pet loses control of his/her bowel movements.
4. Your pet has difficulty with or is unable to have bowel movements or to urinate.
5. Your pet is limping on or refusing to use a front leg.

*Thank you for this opportunity to serve you!*