**Degenerative Myelopathy**

***WHAT IT IS***

Degenerative Myelopathy (DM) is a spontaneously occurring, adult-onset spinal cord disorder that affects dogs, and is similar to Amyotrophic Lateral Sclerosis (ALS) or Lou Gehrig’s disease in humans (1). With DM, there is degeneration of the “white matter” of the spinal cord and the peripheral nerves. The white matter tracts of the spinal cord contain fibers that transmit movement commands from the brain to the limbs and sensory information from the limbs to the brain.

Although the disease is common in several breeds, including German Shepherd Dogs, Corgis, Boxers,

Chesapeake Bay Retrievers, Rhodesian Ridgebacks, and Standard Poodles, it can occur in other breeds and mixed-breed dogs as well. The typical age of onset is between 8-14 years of age, and both sexes are equally affected. It is a genetic disorder: A genetic mutation has been identified that is a major risk factor for development of DM. Therefore, breeders would do well to take into account DM when establishing their breeding programs. DM, on its own, is not a painful disease. However, compensatory movements for a weak hind end can cause the dog to develop pain in other areas of his body such as his neck, shoulders, and front limbs.

***SYMPTOMS***

DM typically comes on slowly, almost imperceptibly. Symptoms generally occur as follows:

**Initial**

* Loss of coordination (ataxia) in the hind limbs
* Wobbling when walking and/or rear feet knuckling over or dragging
* Mild hind end weakness such as difficulty in: walking up steps, squatting to defecate, getting into the car
* Can first occur in one hind limb and then the other

**Intermediate**

* Limbs become weak; dog begins to buckle and has difficulty standing
* Weakness progresses until dog is unable to walk in the hind limbs

**Advanced**

* Loss of urinary and fecal continence
* Weakness in front limbs

In general, without intervention, the dog will become paralyzed in the hind end within 6 months to 1 year.

***DIAGNOSIS***

DM is a diagnosis of elimination. This means that your dog’s veterinarian will first look for other diseases that affect the dog’s spinal cord, using diagnostic tests such as spinal x-rays, CT scan, MRI or myelogram. Other conditions with symptoms that are similar to DM’s include a herniated invertebral disc, tumors, cysts, infections, injuries, and stroke. A herniated disc, for example, can put pressure on the spinal cord, resulting in weakness or paralysis. Once the vet has ruled out those diseases, a presumptive diagnosis of DM might be reached. “Presumptive” because the only way to confirm the diagnosis is post-mortem (after the dog has passed away) when the spinal cord can be examined under the microscope. At that time, the vet can look for and identify degenerative changes in the spinal cord that are characteristic for DM and not typical of other spinal cord diseases.

***PROGNOSIS***

Unfortunately, the ultimate outcome of DM is paralysis of the hind legs and urinary and/or bowel incontinence. There is no cure. The good news is that intensive physical rehabilitation and properly fitted and selected assistive equipment can extend a dog’s survival times, which is normally 6 months to a year for dogs who do not receive therapy.

***PHYSICAL REHABILITATION***

In a study conducted at the University of Berne in Switzerland, researchers determined that dogs who received intensive physical rehabilitation survived longer than dogs who received moderate or no physiotherapy. Their results also demonstrated that dogs who received physical rehabilitation remained ambulatory longer than dogs who did not receive treatment.

The most important consideration when adding physical activity to a DM dog’s care routine is that a fine balance exists between not enough and too much. Overdoing it can worsen the dog’s disease and is worse than doing too little.

Typically, a rehab program would include:

* Active exercise: walking, weight shifting
* Passive exercise: stretching, strengthening & balance exercises
* Hydrotherapy: underwater treadmill or a resistance pool
* Massage

***ELECTRO-ACUPUNCTURE***

Electro-acupuncture, anecdotally, appears to not only help with pain management, the technique also seems to, in many cases, slow the progression of the disease.

***ASSISTIVE EQUIPMENT***

There are many kinds of equipment that you can buy online to assist you with the selection and fitting of assistive equipment for your dog that will offer him independence, improve his quality of life, and make it easier for you to safely assist your dog. These include:

* Booties: essential for protecting the dog’s hind paws to prevent damage
* Slings/Harnesses
* Wheelchairs

**Fox Valley Animal Hospital**

815-459-0317

Jeffrey Chemelewski, D.V.M.

Christine Sherden, D.V.M.

Leah Litchfield, D.V.M.

 Laura McCormick, D.V.M.