

Selected BMD Berner Garde Foundation Data on Spinal Cord Diseases

as of 3/2008

Disease Description (Frequency)

- Invertebral disk disease (7)
- Cauda equina syndrome (1)
- Spinal tumor/neoplasia (30)
- Degenerative myelopathy (47)
 - Diskospondylitis (1)
- Cervical vertebral malformation/
malarticulation (Wobbler's) (17)
 - Caudal vertebral defect (1)
 - Spinal lesions (1)
 - Myelitis (3)
- Spinal problems (32)
- Fibrocartilaginous emboli/Ischemic
myelopathy (8)
- Ruptured/herniated disk (6/12)
 - Ataxia (1)
- Lumbar neurologic deficit (3)
 - Unexplained pain (1)
- Paresis/Paralysis (10/14)

NOTE ABOUT INTERPRETATION OF THESE DATA

Not all BGF spinal cord disease entries are diagnosed definitively (i.e., many spinal cord diseases require necropsy for definitive diagnosis), as such many diseases contained in the database are considered suspected and considered "anecdotal" rather than "diagnosed". Clearly, this underscores the importance to database accuracy of diagnosis by necropsy. Similarly, some disease categories are overlapping or not exclusive - (e.g., paresis/paralysis and degenerative myelopathy).



The Berner Owner's Guide to Canine Spinal Cord Disease Diagnosis

Berner Owner's Guide Series, Guide # 2

By Nancy P. Melone, Ph.D.

Most of us have known or even owned a dog that has suffered a spinal cord disease. Many spinal conditions affecting humans are also suffered by dogs. Sometimes these "back problems" take the form of a degenerative condition that unfolds over time (degenerative myelopathy) and in other cases, they take the form of a problem caused by an infection (diskospondylitis) or vascular issue (ischemic myelopathy) that comes on suddenly. In most cases, a dog's mobility is affected – either temporarily or permanently. In some cases, the problem can be surgically corrected and in other cases there is no cure and treatment is palliative.

Canine spinal cord diseases can be very difficult for your veterinarian to diagnose definitively. Indeed, a number of these ailments must be diagnosed by a veterinary neurologist and are only tentatively diagnosed by a process of elimination of other diseases. Definitive diagnosis must be done after the dog's death. Obtaining such definitive diagnoses by necropsy are extremely important in tracking specific spinal diseases affecting our breed. The result should be recorded for your Berner in the Berner Garde database (www.bernergarde.org) to track these cases and to guide future research.

Research to learn about the causes and treatments for some of these diseases is ongoing. For example, research in mice indicates that some healing can take place in animals with degenerative myelopathy by injecting some of the animal's own bone marrow stem cells into the affected area. These adult stem cells appear to transform themselves into nerve cells. Will such an approach work with dogs? The American Kennel Club Canine Health Foundation has approved a grant of \$100,000 for Dr. Richard Vulliet, professor at the UC Davis School of Veterinary Medicine, to conduct safety trials using such adult stem cells in canine patients suffering from degenerative myelopathy. In addition, the AKC Canine Health Foundation has produced an Internet video (www.akcchf.org/video/) in which Dr. Vulliet describes the disease. A second video gives tips on caring for dogs with degenerative myelopathy, which may be useful in caring for dogs with other immobilizing spinal diseases.

Pet owners can play an important role in diagnosis if they suspect spinal cord disease. In some cases, offering your veterinarian such information can accelerate the diagnosis and make a difference in your dog's mobility outcome. Canine spinal cord diseases differ on the basis of several

factors. For example, some diseases affect specific locations of the spine, whereas others can strike anywhere along the spine. A common problem in Dobermans and Bernese Mountain Dogs (see Berner Garde data on page 4), Wobbler's Syndrome, affects primarily the neck area of the spinal cord. In contrast, spinal tumors can strike anywhere on the spine. Some diseases affect young dogs and others affect older dogs. Pain also plays an important role in predicting the likelihood that the dog will walk again. Surprisingly, deeply felt pain is usually a good sign. Certain spinal diseases come on suddenly and progress rapidly, whereas others appear less dramatically and progress more gradually.

Most veterinarians acknowledge that attentive pet owners have information about their pets that can be of great value in making diagnoses. In the case of diagnosing spinal conditions in your dog, it is helpful if you can answer these questions.

1. What part of the spine is affected (neck, mid or lower back)?
2. How did the condition come about, suddenly or gradually?
3. Did the condition progress rapidly (hours or days) or slowly (weeks or months)?
4. Does your dog appear to be in pain?
5. How old is your dog?

Answers to these question can eliminate certain diseases and, in some cases, make it possible to develop a treatment protocol early enough to preserve some mobility. Again, your veterinarian is your best source of information on your dog's health.

Nancy, who holds an MBA-Ph.D. in computer information technology, is a fancier of Bernese Mountain Dogs as a breeder, competitor and contributor to breed publications. She serves on the BMDCA Breeder Education and Herding Committees and is active in canine health and research. A student in veterinary technology at Purdue University, Nancy is a member of Dog Writers Association of America, AKC, Canadian KC, Bernese Mountain Dog Club of America, Westmoreland County Obedience Training Club and Three Rivers Bernese Mountain Dog Club. Nancy can be reached at nancymelone@mac.com.

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