Veterinary and Health tips for your Dog

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Degenerative Myelopathy

by Sylvia Lueck DVM, © 2001

Degenerative Myelopathy (DM) is a poorly understood condition of the spinal cord causing progressive rear quarter weakness, eventually ending in paralysis and death. German Shepherds are noted for this disorder, but unfortunately many Pembroke Welsh Corgis are affected too, and some human disorders act similarly. The breed predilection for the disease raises suspicions of a genetic component, but in fact, DM may be the end result of a variety of causes rather than a specific SINGLE disease or genetic condition.

Age of onset and rate of progression vary from case to case, but it is mainly seen in middle-aged to elderly dogs. Signs begin as a subtle incoordination of the hind limbs. Over the ensuing months, the uncoordination becomes worse and weakness appears. Affected dogs have difficulty rising or jumping, drag their feet when walking, and wobble and weave with the hind limbs. Eventually they lose the ability to control their bowels and bladder and will become completely paralyzed.

Progressive rear end weakness may be a symptom of many other old age disorders such as herniated (slipped) disks, tumors of the spinal cord, or even arthritis. Thus, every Pembroke with a wobbly gait is not by definition a DM victim. Similarly, dogs from families of high incidence of DM that die with no signs of it are not necessarily “clean”. They may have expired from some other problem before their DM became clinically apparent.

There currently is no test available on the live dog to diagnose DM—it is a diagnosis of exclusion, that is, other problems need to be ruled out. This then leaves DM standing alone as the likely cause, but this can only be confirmed at death by examination of the spinal cord by a neuropathologist. Depth of pocketbook is often the limiting factor in accurate documentation/diagnosis. Some cases may be confusing insofar as some dogs

may have numerous problems. The postmortem is really the most important test of all, although MOST vet clinics are NOT set up to properly remove the spinal cord . . . power tools and finesse are required. It is a job for a neurologist or a pathologist.

The bulk of PWCCA funds in the AKC Canine Health Foundation are currently earmarked by a generous donor for DM research (in excess of $21,000). Assorted inquiries through the course of the past year to drum up interest in this issue have been both frustrating and rewarding. Several inquiries to a researcher in Florida who has done a lot of work on the problem in Shepherds were met with no response. Several other inquiries to other sources met also with no, or limited, response.

E-mail with the Genetics Chair for the German Shepherd Dog Club of America revealed that the GSDCA has supported both the Florida researcher and, more recently, Dr. Coates of Texas A & M on DM research. The work by Dr. Coates is still in progress. I think it is safe to say, however, that DM is not likely to be a quickly answered problem with a rapidly available DNA test. It will require time, lots of money, accurate data collection, and archiving of DNA from affected families over a few generations before DM's cause is determined. Impossible? No. Simple? Again, no.

Contact with Dr. Dennis O'Brien, a neurologist at the Veterinary Teaching Hospital, University of Missouri, has been very useful. He is prompt in his replies, generous with his information, and established contact, on PWCCA's behalf, with Dr. Joan Coates and Dr Gary Johnson (does DNA archiving). These three researchers, plus six others, have since agreed to be involved in a two-year $44,000 research project to examine DM in the Pembroke Welsh Corgi.

The primary investigator and author of the proposal is Dr. Joan Coates. Her preliminary draft of the project has received approval by the AKC Canine Health Foundation, which I am pleased to report will pay for half of the costs if it gains FULL approval. A final draft will likely have been submitted to the Foundation by the time you are reading this.

Dr. Coates's hypothesis is that methionine deficiency or a related metabolic imbalance or oxidative stress is associated with development of DM in the Pembroke Welsh Corgi. Her four complimentary and interrelated objectives are to: (1) characterize DM in the Pembroke Welsh Corgi using neurodiagnostic and neuropathologic studies; (2) establish whether evaluation of serum and CSF (cerebrospinal fluid) for methionine and related metabolites are useful antemortem (before death) diagnostic techniques for DM; (3) establish whether evaluation of serum and CSF metabolites related to oxidative stress are useful antemortem diagnostic techniques for DM; and (4) establish an epidemiologic survey of DM within the Pembroke Welsh Corgi breed and bank DNA for future candidate gene studies.

Once exact protocols for sample collection and processing are settled upon, dogs will be accepted for the study. The beauty is that any neurological facility or university will be able to do the workup and submit the samples to "our team" for analysis. This will allow for inclusion of any Pembroke from ANYWHERE, as long as the samples can be shipped

overnight. For dogs that participate in the study and are followed through to post mortem, some amount of monetary compensation will be provided.

The PWCCA Genetics Committee is pleased that Dr. O'Brien has accepted an invitation to speak to us at the 2001 National. He will discuss Degenerative Myelopathy and the development of DNA tests in general.

What's The Point? Basics of Veterinary Acupuncture

by Michelle Lawson, DVM, © 2000

Acupuncture has been used in China for over 3000 years. Interest in the US started after an improved political relationship with China was established in the 1970s. Research began to show acupuncture was a safe treatment for problems that were challenging to treat with Western medicine alone. The spillover of interest from human to veterinary applications has stimulated an increase over the past 25 years in the number of veterinarians who offer acupuncture services.

In 1989, the American Veterinary Medical Association (AVMA) recognized acupuncture as "a valid modality and an integral part of veterinary medicine." It is considered a medical procedure and should only be performed by a licensed vet with post-graduate training in this modality.

What is Acupuncture?

Acupuncture is the insertion of fine needles into specific points on the body surface to regulate or normalize body functions. To do this, acupuncturists work with the body's energy flow, called Qi (also spelled Chi, pronounced "chee"). Qi has positive (Yang) and negative (Yin) components that flow through channels or pathways in the body called meridians. Chinese medicine believes that an imbalance of Yin and Yang or blockages in the meridians allow pathologic conditions to begin. Stimulating acupuncture points adjusts the energy level, returning the body to a normal balance and allowing healing to begin.

Scientific studies have shown that acupuncture pathways run along pain pathways and produce endorphins, natural chemicals that block pain. There is also electricity generated at the acupuncture point.

What Can Acupuncture Treat?

A variety of illnesses can be addressed with acupuncture. Strengthening immune systems, improving organ systems, and providing anti-inflammatory analgesic effects are common. So kidney disease, asthma, and arthritis are examples of typical disease syndromes treated.

Techniques

There are several ways to stimulate acupuncture points to help move Qi or break up Qi stagnation. Some ailments respond well to specific techniques. Following are brief descriptions of common techniques.

Dry needling – Sterile disposable needles are inserted into the acupuncture points. They are available in a variety of lengths and diameters. Pain relief and organ imbalances are common problems addressed with dry needles.

Acupressure – This is the manual stimulation of specific acupuncture points to encourage the flow of Qi. It is excellent for relaxation, pain relief, and reducing muscle spasms.

Aquapuncture – With this technique, acupuncture points are stimulated by injecting a sterile solution into a point, rather than just dry needling. Vitamin B is used most commonly. Stressed animals that may not tolerate a 15–30 minute treatment may benefit from this method.

Moxibustion – The addition of heat helps stimulate acupuncture points with this approach. Moxa is the term for the powdered leaves of the mugwort Artemisia vulgaris. They are pressed into a stick and applied to the tip of an inserted needle and set on fire; it burns into ash very much like incense. The heat travels down the needle, further enhancing the point stimulation.

Your Pet

Dogs, cats, and horses are the most common species receiving veterinary acupuncture, but exotic animals can reap the benefits as well. Choosing a vet to perform acupuncture on your pet will include a traditional Western medicine diagnosis and treatment plan along with acupuncture, depending upon your pet's specific needs and goals of therapy. There is an extensive training program, usually over the course of five months, plus a licensing exam given by the International Veterinary Acupuncture Society (IVAS) every year. IVAS, Colorado State University Veterinary School, and the Chi Institute in Florida are the currently accepted organizations offering post-graduate veterinary training.

Acupuncture as a complementary component of patient therapy is becoming more popular every year. All of the training classes are full well in advance. Pet owners are asking for it, especially if they have received acupuncture treatments themselves! Discuss the appropriateness of acupuncture with your veterinarian, there may be new help available for your beloved four-legged family member.

References:

Rivera, Michelle – Fundamentals of Veterinary Acupuncture, Vet Tech. Jan 2000, pp. 32-36.

Glimski, Maria – Introduction to Veterinary Acupuncture Workshop, Phoenix, AZ. Oct 1999.

Immune Mediated Hemolytic Anemia

by Sylvia Lueck, DVM, © 1999

Immune Mediated Hemolytic Anemia (IMHA) is one of the most common hematologic disorders in the dog and is defined as increased destruction of red blood cells by the animal's own immune system. The mechanisms that trigger self destruction are poorly understood. At the end of its usefulness, every red cell undergoes changes that trigger the immune system to remove it from circulation. The reason for failure of "tolerance", or recognition of "self" that leads to premature or oftentimes massive destruction of red blood cells is a mystery and probably multifactorial.

Incidence of IMHA may occur at high frequency within familial lines, and studies in rodents show genetic factors may increase susceptibility.

Although most cases are idiopathic (cause unknown), hemolytic anemia can be secondary to assorted blood parasites, cancers (lymphoma and Hemangiosarcoma), and exposure to certain drugs, toxins, and recent vaccination. It may also be seen as just a segment of overall autoimmune failure involving several organ systems simultaneously.

IMHA occurs four times more often in bitches than dogs and most commonly in middle age. Many immune mediated disorders trigger in late spring (unknown why) and intact bitches can trigger around the time of their heat cycle.

The course of this disorder varies from mild and almost inapparent to fulminate, nasty mass destruction and death despite treatment within a day or two. The severe cases will have pale mucous membranes, jaundice (yellow skin and eyes), urine that is dark burgundy brown, and respiratory distress due to tissues being starved for oxygen and as the condition worsens, due to pulmonary thromboembolism (clots in the lungs). Mortality is directly correlated to the severity and rapidity of the destruction of the red blood cells and exceeds 80% in severe cases.

Treatment is aimed at suppressing the immune system, usually with hefty doses of cortisone plus aggressive cytotoxic (chemotherapeutic) drugs. If anemia is severe, blood transfusions may be needed, but are controversial since they may accelerate the hemolytic process and can have other deleterious effects. Transfused blood requires blood typing, has a short shelf life, and often is in scarce supply. A new product of great value for these patients is Oxyglobin, an oxygen-carrying solution to be given intravenously. This product is universally compatible (cross matching and blood typing is unnecessary), readily available, and has a long shelf life. Oxyglobin delivers oxygen

immediately to the tissues and expands the blood volume, which is important to continued function of major organs.

In recurrent or resistant cases, removal of the spleen MAY be indicated since this is where most of the red cell destruction occurs. However, it can be more than challenging to get some patients stable enough to survive the procedure.

Dogs that respond to treatment are SLOWLY tapered off medication over several months. They should be watched carefully for signs of recurrence forever after. Animals that relapse are frequently harder to get under control a second time.

Intact bitches who recover from an autoimmune condition should be spayed as soon as stable (and off of cortisone), since as previously mentioned, the heat cycle can be a "trigger" for autoimmune events.

Survivors of autoimmune crises should have an annual Distemper and Parvo titer (immunity level check) blood test. Vaccines should only be given if they fall below protective levels, and not in combination with any other vaccine or medications. Since roughly 40% of all IMHA cases occur in late spring, I would avoid doing any vaccines at that time of year in susceptible individuals.

References:

1. Kirk's current Veterinary Therapy XII, 1995, pp152-157.

2. Personal Communication, David Bostwick DVM, member ACVIM, Critical Case Associates, Seattle, WA.

Pet Allergies

by Dr. Michelle Lawson, © 1999

If you suffer from pet-related allergies, here are some tips for you and your household to help make your co-existence with those special dogs and cats more enjoyable.

Allergy-Proofing Your Home

1. Keep all animals out of your bedroom.

2. Improve the filtration capabilities of your vacuum cleaner with special filters and bags that trap more particles. Look for a high allergen containment rating in new vacuums.

3. Consider replacing carpeting with tile, wood, or vinyl flooring and using throw rugs that can be washed.

4. Encase your mattress and box springs in vinyl covers, reduce upholstered furniture, and wash blankets, curtains, and pillows regularly.

5. Use an air purifier to help minimize allergens in the household air.

6. Replace or clean furnaces, ducts, and air conditioner filters often.

7. Circulate the air in your house daily by opening windows.

8. Keep your home scrupulously clean.

Tips for Minimizing Human-Pet Allergic Episodes

1. Make sure your pet is really the source of your allergies. Many people mistakenly blame their pets when the real allergy source is something else.

2. Wash your hands after petting your animal.

3. Bathe your pet with an antiseborrheic shampoo to reduce the accumulation of skin dander and shedding hair. Bathing also reduces the oil and bacteria build-up that causes skin irritation. This irritation leads to excessive licking by the pet and results in the spread of shed hair and dander throughout the house.

4. Have your pet groomed regularly to keep excessive hair and dander in check.

5. Spray the pet with a pet-approved moisturizer to hold down the dander until bathing.

6. Be aware that dusty or deodorized kitty litter is another potential source of allergens.

NO Chocolate for Canines!

It may sound unbearable to us chocoholics, but chocolate in any form can be deadly to dogs. No milk chocolate, dark chocolate, baker's chocolate, or any type of chocolate for our dogs. Be especially watchful during holidays when you may have dishes of candy sitting around the house. Warn children about not sharing their candy with the pets. And be careful when baking—baking chocolate is ten times more dangerous than milk chocolate.

The toxic ingredient in chocolate is theobromine, which may cause increased or irregular heart rate, vomiting, diarrhea, convulsions, and seizures. If your pet ingests chocolate, call your vet or emergency vet clinic immediately.

Salmon Poisoning

Do not feed or let your dog eat raw fish! Eating raw fish (not just salmon, but many other freshwater fish in the Pacific Northwest) may lead to salmon poisoning. The poisoning is caused by a bacteria carried by infected parasites in fish. Symptoms in your dog include diarrhea, vomiting, fever, and dehydration. Onset of symptoms is usually five to seven days after eating the infected raw fish.

When you clean or prepare fish, be sure you wrap any remains and discard in a trash can with a well-fitted lid.

If you take your dogs near a beach or river, keep them on leash and keep an eye out for dead fish on the shore.

If you like to go fishing, consider leaving your dog home.

All fish should be well-cooked before eating.

Egg Caution

Just as you should never ingest raw eggs in any form, never feed your dog raw eggs. This means any recipe containing eggs must be well cooked. Salmonella bacteria is rampant in the chicken population, and is transmitted to the chickens' eggs. Salmonella causes food poisoning and gastrointestinal inflammation.

Poisonous Foods

Do not allow your dog to eat the following:

Alcoholic beverages	Tomato leaves or stems
Peach pits	Chocolate (of any type)
Almonds	Walnuts
Potato leaves, stems, or eyes	Coffee (incl. grounds or beans)
Apple seeds	Wild carrots
Rhubarb (leaves)	Hops [used in beer brewing]
Apricot pits	Wild cherry
Salt (in excess)	Japanese plums
Avocado leaves, seeds, stems, skin	Wild cucumbers
Spinach	Macadamia nuts
Tea	Wild parsnip
Balsam pears	Nutmeg
Tobacco (not safe for you either)	Wild peas
Cherry pits	Onions, onion powder
Alcoholic beverages	Yeast dough, uncooked

Potentially Perilous Plants

May cause reactions ranging from skin rash or inflamed mouth, to diarrhea and vomiting, to organ failure and death.

Amaryllis (bulb)	Daffodil (bulb)
Iris (tuber)	Poinsettia
Asparagus fern	Daisy
Jack-in-the-pulpit	Pothos
Autumn crocus	Daphne
Jimson weed	Rhododendron
Azalea	Delphinium
Juniper	Rosary Pea
Begonia	Diffenbachia
Lantana	Schefflera (umbrella plant)
Bird of Paradise	Dumbcane
Larkspur	Skunk cabbage
Calla Lily	Elderberry
Laurel	Tobacco
Carnation	Elephant ears
Lily of the Valley	Tomato (leaves, vine)
Castor bean	English ivy
Mistletoe (berries)	Tulip (bulb)
China berry	Eucalyptus
Morning Glory	Umbrella plant
Chrysanthemum	Foxglove
Narcissus (bulb)	Violets (seeds)
Creeping Charlie	Geranium
Oleander	Water hemlock
Crown of Thorns	Holly, holly berry
Periwinkle	Wisteria
Cyclamen	Hyacinth (bulb)
Philodendron	Yew
Amaryllis (bulb)	Hydrangea (blossom)

Beware of Plastic Bags

Beware of all airtight bags, especially those that contain food—potato chip and pretzel bags, the bags inside cereal boxes, and so forth. There have been several cases of Corgis suffocating in a chip bag—they stick their head in to get the food, then cannot get the bag off their head or muzzle. Consider storing the food in a plastic container with a lid and destroying the bag immediately. Rip the bag open on at least two sides, or cut it up, before putting it in the trash can.

Skunk Smell Remover

This really works! The formula was supposedly developed by a chemist whose dog was "skunked".

1 quart 3% hydrogen peroxide

¼ cup baking soda

1 T. liquid dishwashing soap

Mix all together in a large bowl or bucket; it will be fizzy. Thoroughly wet the dog with this solution. Work it well into the coat, developing a good lather. Be careful to keep solution away from the dog's eyes, nose, and mouth; carefully clean the face with a sponge dipped in the solution. Rinse thoroughly.