

DEMODECTIC MANGE

One of the most difficult problems a Boston Terrier owner ever encounters is demodectic mange. This disease is caused by the presence of the mite *Demodex Canis* in the hair follicles of the dog in conjunction with an impaired or deficient immune system. The disease is thought to be caused by a genetic defect in the immune system. The Boston Terrier is listed among the breeds with familial predilection to demodectic mange.

Frequency

The disease is divided two ways: It is divided into juvenile and adult onset mange and into localized and generalized mange. The recent BTCA Health Survey found that almost 10 % of Boston Terriers have had localized demodectic mange; 5 % have had the generalized form. It is well established that the demodex mites are carried on almost all healthy dogs and spend their entire life in the hair follicles without causing problems.

Demodectic mange in puppies

Demodectic mange is mainly a disease of young dogs that have poorly developed immune systems. The majority of puppies are immune to the mites and will display no ill effects from them. Most dogs will have mature immune systems by the time they are from 12 to 18 months of age and will "outgrow" the problem.

In the first hours of a puppy's life the demodex mites begin moving to the nursing puppies from the mother. These mites will lay eggs in the hair follicles which hatch and multiply. By the time a puppy is 4 to 6 months old he may be showing signs of hair loss around his face caused by the multiplication of the mites.

Diagnosis of demodectic mange

Diagnosis is always made with skin scrapings viewed under the microscope to identify the demodex mites.

Demodectic mange in older dogs

Older dogs with demodectic mange may have a serious underlying disease problem that interferes with a well functioning immune system. Cushings, cancer, hypothyroid and even diabetes have been thought to be associated with a predilection for this mange.

Localized demodectic mange

The differentiation of localized from generalized demodectic mange is based upon the severity of the infection. In cases where there are fewer than five spots of mange on a dog it is termed "localized"; more than 5 spots and the mange is termed "generalized" These spots usually occur on the face but may occur anywhere including the feet. A puppy with "localized" mange will usually be treated with the application of a gentle salve and the owner is encouraged to give supportive treatment that includes a high quality diet, possible addition of vitamins, and special baths. Miticidal treatment is not usually recommended as appropriate treatment for young dogs with localized demodectic mange, as most puppies (90%) will outgrow the problem as their immune systems mature.

Generalized demodectic mange

Generalized demodectic mange represents a totally different problem. With this disease symptoms can become severe, and in addition to substantial hair loss, there can be crusting, oozing, cracking and infection and inflammation of the skin. Some dogs can become very ill. Dogs with a substantial problem need immediate treatment of the skin as well as supportive treatment of the immune system.

The first line of treatment is usually a miticide such as Amatrax. Sometimes the dog's coat is shaved and he will be given a series of dips with this medication. It is important to follow label instructions to avoid complications for both dogs and humans. Your veterinarian will give you detailed instructions. Scrapings will be done again following the first series of dips. There is another treatment that is commonly used for demodectic mange that has not yet been approved by the FDA. It is the use of Ivermectin, the same medication that is used for heartworm prevention, but given in a much stronger dosage to kill the demodex mites. It is often continued for a month. Antibiotics may be used in conjunction as well as vitamin supplementation. The dog may also be given further examination for any underlying disease. Most dogs will recover from generalized demodectic mange. A few will require life-long treatment. Dogs who receive miticidal treatment cannot be assumed cured until a final scraping is done 12 months after the last treatment. Most dogs that will relapse do so during the first 6 months.

Breeding Recommendations

Dr. Lowell Ackerman, a board certified canine dermatologist, advises against the breeding of animals with juvenile demodicosis. He says, "Animals that self cure have a much better prognosis than those requiring miticidal therapy".

Dr. Race Foster of Foster & Smith, Inc. says "Demodectic mange is not an inherited condition but the suppressed immune system that allows the puppy to be susceptible to the mites can be. Remember that all puppies receive the mites from their mother but only a few have ineffective immune systems and develop the mange. The sensitivity can be passed genetically through the generations. Individuals that have a history of demodectic mange, and their parents and siblings should not be bred. Through careful breeding most cases of generalized Demodicosis could be eliminated."

Dr. James M. Giffin and Dr. Liisa D. Carlson say in their book, Dog Owner's Home Veterinary Handbook, "Because of an inherited immune susceptibility, dogs that recover from demodectic mange should not be bred."

The University of California - Davis, Book of Dogs from the School of Veterinary Medicine says, "Because there is ample evidence indicating that juvenile-onset demodicosis has a heritable component, it has been recommended that dogs with generalized demodicosis be neutered (if that has not already been done) in order to prevent perpetuation of the underlying defect(s).

Canine dermatologists have a policy against treating dogs for generalized demodicosis if they are to be used for breeding. They feel general acceptance of this policy will eventually eradicate the disease.

References

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