

The Animal Medical Clinic

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Demodectic Mange in Dogs

Mange is a parasitic skin disease caused by microscopic mites. Two different types of mange mites are significant in dogs. One type lives just under the surface of the skin, while the other type resides in the hair follicles. Although both types of mites share some similar characteristics, there are also important differences. It is important not to confuse the two types of mange because they have different causes, treatments, and prognoses.

Demodectic mange, sometimes just called "demodex," is the most common form of mange in dogs. It is caused by the demodectic mange mite, a parasite which lives in the hair follicles of affected dogs. Under the microscope, this mite appears shaped like an alligator with 8 legs. All dogs (and many humans) have a few of these mites on their skin. As long as the body's immune system is functioning, these mites cause no harm.

Contributing Factors

A dog with demodectic mange usually comes from a litter containing other affected puppies. This is because development of the immune system is under genetic control. Owners of littermates should be put on the alert to watch for it. Because the disease is due to a genetic defect, affected dogs should not be bred. Also, parents of the affected dog should not be bred again.

Prevalence

Demodectic mange is a common parasitic skin disease of dogs. It is primarily seen in dogs less than one year of age.

Causes/Transmission

Demodectic mange most often occurs when a dog has an immature immune system, allowing the mites to grow rapidly. Consequently, this disease occurs primarily in dogs less than 12-18 months of age. In most cases, the immune system matures as a dog grows. When we see the disease in adult dogs, we can usually make the assumption that the dog has a defective immune systems.

Since the mite is found on virtually all dogs, exposure of a normal dog to one with demodectic mange is not dangerous. The *other* type of mange, called sarcoptic mange, is highly contagious between dogs.

Clinical Signs

Surprisingly, a dog with demodectic mange does not itch severely, even though it loses hair in patches. Areas of bare skin will be seen. Hair loss usually begins on the face, especially around the eyes.

When there are only a few patches of hair loss, it is termed **localized** demodectic mange. If the disease spreads to many areas of the skin, it becomes **generalized** demodectic mange.

Diagnosis

Diagnosis is made by a deep skin scraping that is examined under the microscope. Usually, large numbers of mites are found.

Treatment

The localized form is usually treated with topical medication. The generalized form requires shampoo therapy and a special dip or oral medication. Shampooing with special cleansing shampoos helps to flush out the hair follicles prior to dipping. Dipping is described below.

For dogs with generalized demodectic mange, secondary skin infections may represent a complicating factor requiring antibiotic therapy. Dogs with skin infections have very red, inflamed skin. This is the source of the term "red mange."

Because the immune system does not mature until 12-18 months of age, a dog with demodectic mange may have relapses until that age. It is important for retreatment to begin promptly to minimize the possibility of developing uncontrollable problems. Demodectic mange may also occur in very old dogs because function of the immune system often declines with age. Dogs who have immune suppression due to illness or medication are also candidates for demodectic mange.

Prognosis

Treatment of the localized form is generally successful. Treatment of the generalized form is also usually successful. However, if the immune system is defective, neither the mites nor the infection may respond to treatment.

Transmission to Humans

Canine demodectic mange is not contagious to humans.

Prevention

The dip commonly used for demodectic mange contains the insecticide amitraz. Its use requires some caution because it is a strong insecticide that can have some side effects to your dog *and to you* if it is not used properly. Your dog may experience vomiting and sedation for 24-36 hours following each application. If so, those problems will usually be self-limiting. If this occurs, the dip should be diluted with 25% more water the next time it is used. Since each dipping results in the development of tolerance to the dip, your dog is less likely to have side effects with each subsequent treatment. Your dog should be dipped 3 times at 7 day intervals, then examined for the presence of live mites or mite eggs. Further treatment will be determined by the results. If you do the dipping yourself, be sure to wear rubber gloves to prevent getting it on your hands.