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Treating the Skin: Rashes, Itches and Allergies

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TREATING THE SKIN



RASHES, ITCHES

Anyone who has coped with an itchy dog or cat knows how exasperating this can be. One cannot explain to the animal that scratching will only increase discomfort, and as most owners will not sit and watch their pet mutilate itself, a quick trip to the veterinarian is scheduled to seek relief.

"Skin diseases represent a large portion of cases seen in a small animal practice," said Dr. William H. Miller, Jr., assistant professor of dermatology, School of Veterinary Medicine, University of Pennsylvania. "Many cases are minor and can be cured fairly quickly." But in some animals the skin problem is secondary to underlying disease, or it may be due to allergies or autoimmune problems. "The skin is the window of the body," said Dr. Miller. "It can reflect changes in the body or the environment of the animal."

When the causes of skin disease are more complex, extensive testing may be required. This is often beyond the scope of a practitioner's facilities and the animal is referred to the dermatology clinic at VHUP. "We are one of the busiest clinics at VHUP," explained Dr. Robert M. Schwartzman, professor of dermatology and chief of the Section of Dermatology. "We see more than 2,000 cases annually and our laboratory of clinical immunology handles a multitude of tests, not only for the hospital, but also for more than 500 practitioners in the Greater Delaware Valley area." In addition to Drs. Schwartzman and Miller three residents

see patients. They are Dr. Linda Medleau, Dr. Kevin Shanley, and Dr. Richard Long.

Skin problems can run the gamut from an itch caused by flea bites to complex autoimmune disease. "One of the most common problem we see in dogs is flea bite allergy," said Dr. Miller. "It is the primary cause of summer skin complaints in dogs." The cure appears to be simple, all fleas have to be removed from the dog and its environment. This frequently requires extensive treatment of the house and yard and repeated preventive treatments of the dog.

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Dogs and cats, like people, have allergies which cause itches. "Dogs often suffer from inhalant allergies," said Dr. Miller. "Pollen, dust, wool, feathers, all the same things people are allergic to. When a person has an allergy, he or she will try to remove these things from the environment. Dogs cannot do that. Owners won't take up the carpet, throw out the feather pillows or remove plants to prevent their dog from itching." So other ways have to be found to cope with the ailment.

An allergy is an abnormal immune response of the body to a particular substance. "In an allergy the immune response, which normally is a defense mechanism, becomes destructive," explained Dr. Miller. "When we treat these animals, we try to get the response back on the right track, in essence calm it down, so it won't do damage. We hyposensitize the animal." This is accomplished through a series of specially prepared allergy vaccines. "When an itchy animal is brought here and we suspect inhalant allergies, tests are performed to identify the offending substance," said Dr. Schwartzman. "Once it has been identified, we prepare the vaccine which has to be given at regular intervals to keep the immune response under control." The dermatologists at VHUP work closely with referring practitioners to arrive at a regimen most comfortable to the animal and convenient to the owner. "It requires understanding and compassionate owners," said Dr. Miller. "These shots have to be given throughout the dog's life. Allergies cannot be cured, they can only be controlled. Most owners are devoted and understanding and will do anything they can." Both doctors pointed out that inhalant allergies appear to be an inherited problem. "This should be kept in mind when breeding animals," they said. "Don't breed dogs which have genetically predisposed skin diseases."

Inhalant allergies in cats are not as common. And that is good. Cats do not like injections. "They very quickly figure out that it is time for the needle," said Dr. Miller. "They



AND ALLERGIES —

hide and become shy and other methods of treatment have to be found."

Substances in the environment are not the only ones causing allergies. Food can also be the cause of allergies. This is not as common in dogs as it is in cats. "Cats have fewer inhalant allergies, but more food allergies," said Dr. Medleau. Food allergies usually first manifest themselves in a rash. "However, it is a rash that itches," said Dr. Schwartzman, "not an itch that rashes as occurs in inhalant allergies." To determine whether one is dealing with a food allergy and which ingredient causes the discomfort, a bit of patience and testing are required. The animal is placed on a diet it never had before, such as lamb and rice. If the rash and itching stop, one is dealing with a food allergy. The second step is to find the food which causes the reaction. "Owners have to add one ingredient at a time for a period of three days," said Dr. Miller. "They may have to go through a host of different foods before the offender is found." Once this is discovered, the cure is fairly simple, the offending food is withdrawn.

Allergies are just one cause of skin disease. Often a dull coat or bald spots signify more serious problems. "The owner may not have noticed any signs of endocrine disease until the pet's appearance changed," said Dr. Miller. To find the underlying cause, tests are required and once the diagnosis has been made, treatment must be instituted to correct the disease. "Liver and kidney problems can manifest themselves through changes in the skin, as can hormone imbalances. We usually handle the treatment

after consultations with other specialists. It is easier for practitioner and client to deal with one department rather than with three or four."

Dr. Schwartzman and Dr. Miller are very interested in skin problems caused by autoimmune disease. "Fortunately these are not too common in dogs," said Dr. Schwartzman. "They are rare, but can be fatal if left untreated." Autoimmune skin diseases such as pemphigus also occur in people, usually in middle-aged persons. Both doctors would like to see more cases in dogs in the hope of establishing a model to help develop treatment plans for humans affected by this disease. They are conducting their research in cooperation with the University of Pennsylvania Medical School.

Research is an important part of the department. Drs. Schwartzman and Miller are engaged in a project in cooperation with the Medical School to find a better treatment for acne. Dr. Medleau has just begun to project, also in conjunction with the Medical School to examine the normal bacterial flora of the skin of dogs and cats and its relationship to skin disease. The study may yield some important basic data which may be helpful in the treatment of skin disease for animals and humans.

The clinic sees a lot more dogs than cats. "We really would like to see more cats with skin problems," said Dr. Medleau. "We have seen quite a few cats with psychogenic alopecia." In this disorder the skin changes are caused by behavior, not disease. Cats lick and lick a part of the body and pretty soon their hair falls out and the skin becomes irritated. "Usually the cat

is upset at something," said Dr. Medleau. "We try to figure out what bothers the animal and then try to eliminate the problem. We may have to use tranquilizers to break the habit." A similar problem exists in dogs. They can develop a lick graunuloma and treatment is often very difficult.

Other skin problems presented to the clinicians can be caused by mites. One of the most severe of these diseases is demodectic mange in dogs. "We will not treat breeding stock with the disease unless the animals will never be used for breeding," said Dr. Schwartzman. "There is a hereditary component to this disease." He explained that treatment for demodectic mange has improved in recent years and is no longer as noxious to owners as it once was. Animals still need special shampoos at regular intervals but these are not as offensive as they once were.

Skin problems range from minor nuisances to major disease. Many cannot be prevented and require dedicated, devoted and conscientious owners to carry out the home treatments of baths, ointments, pills and allergy shots. But pet owners can minimize the chance of skin disease in their pets somewhat. "Animals need proper nutrition, care, and regular grooming," said Dr. Miller. "Their environment has to be kept clean and free from parasites. Breeders should avoid breeding closely related animals to minimize the concentration of traits for inhalant allergies."

The dermatology clinic sees patients Tuesday through Friday and appointments can be made by calling 898-4680. *Helma Weeks*