

Research Article

COMMON DERMATOLOGICAL DISEASES BY BACTERIA AND FUNGI IN PET DOGS

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ABSTRACT

The present investigation reveals various skin diseases in dogs caused by bacteria and fungi. The various infectious stages in diseases are observed. The diagnostic features of diseases are undertaken and being preventive and dog care has been considered as an important aspect while keeping pets. Particular antibiotics and steroids are utilized for the treatment of infectious diseases. However, prevention is considered better than cure to avoid side effects of medications. Pet keepers should be aware of pet care and precautions for pet.

INTRODUCTION

Dog skin disorders are among the most common health problems in dogs. Skin disorders in dogs have many causes, and many of the common skin disorders that afflict people have a counterpart in dogs. The condition of dog's skin and coat can also be an important indicator of its general health. Skin disorders of dogs vary from acute, self-limiting problems to chronic or long-lasting problems requiring life-time treatment. They also need to be differentiated on the basis of being of primary or secondary (due to scratching, itch) in nature, making diagnosis complicated. Clinical and histopathological diagnosis related to skin diseases of dogs have been carried out by Gross *et al.*, 2008. Dog skin disorders may be grouped into categories according to the causes. These may be:

Canine Atopic Dermatitis caused by molds as allergens, ear and skin infections with the bacteria *Staphylococcus pseudintermedius* and the yeast *Malassezia pachydermatis* are common secondary to canine AD.

Hot Spots or **Acute Moist Dermatitis** is an acutely inflamed and infected area of skin irritation created and made worse by a dog licking and biting at itself. A hot spot can manifest and spread rapidly in a matter of hours as secondary *Staphylococcus* infection causes the top layers of the skin to break down and as pus becomes trapped in the hair.

c. Ringworm is a contagious fungal skin infection and is more common in puppies than in adult dogs.

d. Non-contagious skin infections can result when normal bacterial or fungal skin flora is allowed to proliferate and cause skin disease. *Pyoderma*s are a common cause of skin disease in the dog (Ihrke, 2006). Common examples in dogs include *Staphylococcus intermedius pyoderma*, and *Malassezia dermatitis* caused by overgrowth of *Malassezia pachydermatis*.

MATERIALS AND METHODS

Diagnosis has to be carried out from the case history and appearance and location of the lesions. In some cases, it may be necessary to culture the skin (grow the bacteria) and conduct sensitivity tests to determine which antibiotic will be effective in treatment. Most bacterial skin infections in dogs are secondary to another disease such as parasitism, allergies, endocrine (hormonal) disorders or abnormalities in the immune system. Therefore, in recurrent cases, it is important to search for underlying causes. It may be necessary to do blood tests, allergy tests or skin biopsies to achieve a complete diagnosis. The appearance of the lesions, the history of their development and the age of the dog are all helpful in diagnosing fungal infections. A Wood's Lamp Test (ultraviolet light) can be used to help diagnose the *Microsporum* species particularly. A definite diagnosis can be obtained through a fungal culture by growing the fungi found on the affected hairs on skin.

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OBSERVATIONS

Bacterial Skin Infections (Pyodermas)

Commonly itchy, yellow pustules are often observed early in the disease, and the dog's skin can get reddened and ulcerated. Dry, crusted areas appear as the condition advances, along with loss of hair in the affected areas (lesions) and an odour. All areas of a dog's body may be involved, but most cases are confined to the trunk. The chin is one area commonly affected. Called chin acne, this condition is actually a deep bacterial infection. Obese dogs and dogs of the pug-nosed breeds are frequently affected by pyoderma in the skin folds on their face, lips and vulva. Other areas where pyoderma may occur include between the toes and on the calluses of the elbows that mostly affects the abdominal area in young puppies.

Fungal Skin Infections (Specifically Ringworm)

Symptoms of Ringworm are seen most commonly in young dogs. The fungi live in dead skin tissues, hairs and nails. Hair loss, usually in circular patches, may appear. If infected, the center of the patches may have a dry, crusty appearance. The head and legs are most commonly affected by ringworm, although the disease may spread over other parts of the dog's body if not treated. Dogs may scratch the lesions. An imposing number of fungi have been incriminated as agents of ringworm in man and lower animals (Kaplan, 1967).

RESULTS AND DISCUSSIONS

Keeping pet dogs has become a trend in modern times. Being preventive and the regular care of dog according to veterinary protocols is very necessary. However, cure is also available, where initial treatments may entail removal of the hair in and around the lesions, washing of the whole dog with antibiotic shampoos such as benzoyl peroxide, careful drying and the application of an antibiotic ointment to local lesions, in most cases, antibiotics will also be administered orally for 3-4 weeks. Bandages or a protective collar which prevents the dog from mutilating the lesions may be applied. Some pyoderma involving skin folds can require corrective surgery. In recurrent cases where testing reveals no definable underlying cause, special staphylococcal vaccines as an alternative to long-term antibiotic treatment can be tried. It may be necessary to continue treatments such as antiseptic shampooing, antibiotic ointment applications and giving antibiotics orally at home. While most cases respond to treatment, recurrences of pyoderma are common, particularly if treatment recommendations and follow-up visits to your veterinarian are neglected. Glucocorticoid steroids cannot be administered. In case of fungal infections, the hair around the lesions is clipped, and special fungicidal shampoos or rinses are used for bathing the dog. Topical lime sulfur and mandatory systemics should be administered.

CONCLUSIONS

It is best if we do a bit of research about how to take care of a dog before deciding to accept a dog as a member of your household. It involves puppy care, where socialization is a very important part of how to train a puppy, since it sets the foundation for future dog training. It's also important that you feed the puppy a special puppy-food diet for at least their first year.

Knowing how to take care of a dog involves proper attention to your dog's diet. Dietary factors have a major role in the maintenance of healthy coat and skin, and are significant in the etiology and therapy of certain skin diseases (Watson, 1998). Dogs' food should be derived from high-quality protein sources. It's also best to avoid dog food that contains artificial preservatives, colors or chemical flavoring. Potty training in particular can be difficult, as some dogs need a bit of time to adapt to going to the bathroom outdoors.

Be sure to check your dog's eyes, ears, teeth and nails during the grooming process. In some cases, early identification of a health problem can save your dog from a serious medical condition. Decent grooming equipment can be found at any discount pet supplies store.

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Proper veterinary care is extremely important when understanding how to take care of a dog. It's best if you bring your dog in for veterinary checkups at least once per month. If you're worried about costs, you may want to invest in pet insurance for your dog. Pet insurance can cover some or all of your veterinary bills, and will usually also cover emergency procedures. Many dog owners often underestimate how important veterinary care is for knowing how to take care of a dog.

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