

## **BACTERIAL SKIN INFECTIONS (PYODERMAS)**

### **CAUSES**

Staphylococci ('Staph bacteria') are the most common organisms found in bacterial skin diseases (pyoderma's) in dogs. Fortunately, these bacteria (*S. intermedius*) are not contagious to humans or other pets.

### **SIGNS**

Commonly itchy, yellow pustules are often observed early in the disease, and the dog's skin can be 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.

### **DIAGNOSIS**

This is usually made 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.

### **TREATMENT**

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.

## **4 FUNGAL SKIN INFECTIONS (RINGWORM)**

## **CAUSES**

The fungal skin infections of dogs are caused primarily by two species of fungi: *Microsporum* and *Trichophyton*. The skin diseases resulting from these fungi are commonly called 'ringworm.'

## **SIGNS**

Ringworm is 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.

## **DIAGNOSIS**

The appearance of the lesions, the history of their development and the age of the dog are all helpful in diagnosing ringworm. A Wood's Lamp Test (ultraviolet light) can be used to help diagnose the *Microsporum* species only. A definite diagnosis can be obtained through a fungal culture -- grow the fungi found on the affected hairs.

## **TREATMENT**

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.

## **PUBLIC HEALTH ASPECTS OF RINGWORM**

Ringworm is contagious to humans, particularly to children and to other household pets. Infected dogs should be kept away from children and other dogs and cats until the infection is cured which can be as long as 2-3 months or more after the treatment begins. Adults should be careful to wash their hands thoroughly after handling an infected dog. If treated early, ringworm is readily controlled in humans. Other household pets should also be examined for ringworm.