

Treatment and Prevention of the Most Common Skin Diseases

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Relatively few skin diseases of dogs account for the vast majority of skin problems experienced by dogs and their owners. The most common diseases include allergic dermatitis, bacterial and yeast infections, flea and mite infestations, and ear infections. Unfortunately, few of these can be cured, but early recognition and treatment will usually provide good control of the disease. If not, progressive disease often leads to severe irreversible changes, which have a significant negative impact on treatment and prognosis.

Pyoderma--Infections of the skin caused by bacteria. Staphylococci are the most common organisms found in Pyoderma's in dogs. Pyoderma are classified as surface, superficial or deep. The origination and development of any of the three types of pyoderma depend on three major factors.

1. The actual disease-causing properties of the invading bacteria
2. The route of entry the bacteria used to penetrate the skin
3. The action or reaction of the animals' immune system toward the bacteria.
- 4.

Staph infection in dogs is different than the staph infection in humans.

MRSA (Methicillin Resistant Staphylococcus Aureus) is a greater problem in humans than dogs.

Staphylococcus Aureus--In Humans

Staphylococcus Intermetius--In Dogs. Humans can get Staph Intermedius from Dog Bites. But these bacteria are not contagious to humans or other pets.

Two of the most common types of **Surface pyoderma**:

1. pyotraumatic dermatitis--Hot Spots (Acute moist dermatitis)
2. Skin fold dermatitis--associated with moisture and accumulation of debris.

Intertrigo--folds: lip, vulva

Mucocutaneous pyoderma--infection is uncommon.

Superficial Pyoderma--Commonly called superficial folliculitis, which present themselves beneath the stratum corneum layer of the epidermis.

1. Impetigo
2. Superficial Bacterial folliculitis
3. Spreading pyoderma

Lesions of Superficial pyoderma:

1. papules--red spots
2. pustules--white heads
3. crusts--scabs

Pyoderma Infection Hair Follicle: Hair will fall out

Alopecia--Hair Loss

Deep Pyoderma--Bacterial infection that extends to the dermis.

1. Folliculitis (follicle--a small secretory sac or cavity)

The lesions may be localized or generalized and often appear on the face, feet and pressure points.

2. German Shepard pyoderma
3. Muzzle pyoderma
4. Pedal pyoderma
5. Cellulitis

Most dogs with skin infections have an underlying disease related to allergies: Allergic Dermatitis.

Staph recurrence is "**Bacterial**" **Immune Mediated Issues.**

Folliculitis-Three Causes:

Bacterial (Staph Bacteria) -which is the most common. Not all bacterial staph infections are irritated, but most are.

Ring Worm--Fungal--The fungi live in dead skin tissues, hairs and nails. Hair loss, usually in circular patches--Fungal Culture 1-3 Weeks.

Demodectic Mange- Generalized demodectic mange is often a sign of underlying internal disease or a hereditary problem.--Skin Scraping

Pseudomonas is a cause of Chronic Ear Disease...Pseudomonas Pyoderma *Blood Blister

Some Staph infections look like hives

Topical Therapy:

Bactiderm--A topical antibiotic that penetrates--good for treatment of one or two lesions.

Mupirocin 2%--Topical same s bactiderm--for local lesions

Treatment should last two to three weeks for skin pyoderma.

Cocker Spaniels have an inherited disorders, which show signs as young adults one to three years of age.

Lesions of pyoderma, Nodules--one must remember bloody discharge means the infection is deep.

Hemorrhagic Bulla

Intradigital Cysts--Most are deep Bacterial Infections and take longer to treat with antibiotic therapy --usually 3-4 weeks or even 8, 9, 10 weeks on antibiotics.

Intradigital pyoderma is located between the toes and pads of the feet. It is a type of cellulitis.

Chin and Muzzle folliculitis is Deep Pyoderma. Furunculosis (follicles plugging up) -often referred to as canine acne.

One or two lesions can be treated with topical ointment such as mupirocin (Bactiderm)

Deep Staph, Pseudomonis Proteus

Superficial Staph

Treatment for Active infection: Antibiotic, Topical

Prevention of Recurrence:

Immune modulatory treatment

Treatment of Primary Disease: Parasitic, hormonal, allergies.

Intense itching when a dog gets a bacterial infection

Idiopathic--Recurrent Pyoderma--treat with staphlysate

Staph usually is resistant to cephalexin except in cephalexin resistant Staph.

Antibiotic Selection:

Important principals:

First time or recurrent Pyodema

Use Correct Dose

Continue until beyond resolution

Compliance as to three times a day or once a day

Cost:

Usually vets treat ten days to two weeks of antibiotics

But Dermatologists suggest treating at least three weeks --a dog needs more than two weeks of treatment.

B-Lactams

Cephalexin

1st generation Cephalosporin

Generics

22mg/kg every twelve hours

every eight hours for deep pyoderma

Inexpensive and rare resistance

Pseudomonis:

Use acid vinegar, salicydic acid

Antiseptic drying agent--serumin

1-2% white vinegar to clean fold areas.

Malassezia pachydermatis--Cause of yeast dermatitis-Otitis

Clavamox is a good antibiotic but is expensive

Prefer to use brand names and not generic

Yeast--looks different, there are no purulent lesions

Clinical signs: Fold areas--ears

Lip folds, vent. Neck folds

Axilla, peri anal, intra digital

Clinical signs (Yeast)

Redness

Hair loss

Odor

Greasy

Chronic purities

Lichenifications

Hyperpigmentation

Ears-Discharge is thick, black or dark brown--copious amounts

Chronic ear disease is usually caused by allergies.

25% food allergies-chronic otitis

Chronic --rupture of ear drum,

Food allergy--may affect only one ear--not always both ears.

Dogs will lick their feet with yeast infections. Many times the allergy is overlooked, one must check the nail folds, and may have mild hair loss in these areas.

To diagnose yeast--cytology

Topical antifungal (bath) for yeast dermatitis

Shampoos:

Topical: 2% miconazole, Ketoconazole, 2% chlorhexidine (good for bacterial and yeast)

Shampoo has a limited effect. It is best to use one with residual--leave on formula such as resizole.

Thyroid/hormonal disease--usually are not itchy, and more difficult to diagnose. Most hormonal problems that affect the skin produce hair loss that is evenly distributed on each side of the dog's body. The skin may be thicker or thinner than normal.

Topical Antifungals

Localized--interigenous area--

Licking feet--evaluate every nail fold, and do cytology

Pledgets(malaseb) skin wipes--use on nail folds.

Wider-generalized area--miconazole spray, malaseb spray

Ketoconazole sproanox pills

Human antifungal medications do not work on dogs.

Allergies: Atopic dermatitis is more common and tougher to cure

Puritis--irritation itchy

Bacterial--Staphylococcal pyoderma

Yeast--malassezia Dermatitis Otitis

Puritis is the most outstanding feature and can be mild to moderate in severity. Sometimes more severe when it is Chronic.

Flea Allergy--usually the "pants" area. It is important to note the body location.

Atopic Dermatitis: face, ears, underside (ventrum), feet, perineum, antebrachium (forearm)

A physical exam is needed because secondary lesions often are the most prominent lesions.

Diagnosis:

History

Clinical signs

R/O differential diagnosis--Not based on results of allergy testing. Allergy test should not be used to make a diagnosis.

Skin and blood tests are both of great value.

Atopic Dermatitis--allergy testing

Skin-serum test-detect the presence of allergen

Causing disease--allergies

Not causing disease-subclinical hypersensitivity.

Neither test forms the basis of a diagnosis of Atopic Dermatitis.

Atopic Dermatitis treatment

Drugs: Derm Cap, fish oil, antihistamines.

1. Allergen specific immune therapy

Inject allergens to decrease signs

Dogs 1/3 excellent 1/3 good 1/3 no responses

2. symptomatic therapy

3. Allergen avoidance

4. antimicrobial therapy

For good results with Atopic Dermatitis:

Oral glucocorticoids

Oral, injectable

Cyclosporine

Prednisone--use for 3 days.

Crisis Buster during diagnostic work up therapy: 0.5 to 1 mgm every 24 hours times three days.

Use the lowest possible dose:

0.5 to 1mgm every 24 hours then taper

0.5 mgm/kg every 48 hours maintenance

+ emamil P

Cyclosporine

Anti-allergic and immunosuppressive

5mgm/kg every 24 hours by mouth.

Minimum of 4 weeks

If responsive try every 48 to 72 hours or decrease the dose. Aim for 1-2 mgm/kg.

Better absorption on an empty stomach. If vomiting occurs, try with food.