

Peer Reviewed

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Scaling & Crusting Skin Disease

The skin commonly develops scaling and crusting lesions in response to a variety of inflammatory or metabolic insults. Some characteristics of these lesions can suggest a specific condition; in other situations, the appearance of the lesions may be nonspecific but clues can be derived from location, distribution, age of onset, breed, presence and degree of pruritus, and any other clinical signs.

In the checklist provided, match each disease with *only one* picture and description. Though some of the pictures may seem to fit well with more than one disease, each image has only one correct match.

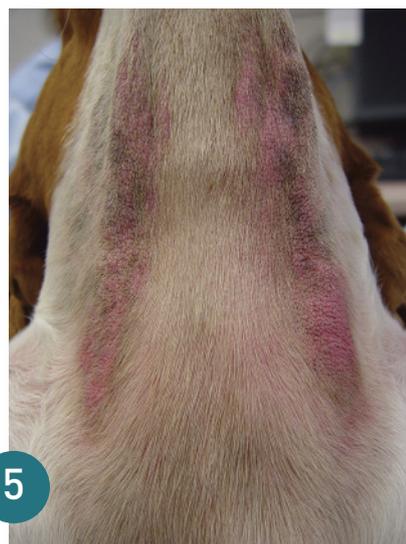
See pages 18 and 19 for the answers.

Lesion Checklist:

- Staphylococcal Pyoderma
- Sarcoptic Mange (Scabies)
- Food Allergy
- Zinc-Responsive Dermatitis
- Malassezia* (Yeast) Dermatitis
- Superficial Necrolytic Dermatitis (Hepatocutaneous Syndrome)
- Dermatophytosis
- Primary Seborrhea
- Calcinosis Cutis
- Exfoliative Cutaneous Lupus Erythematosus
- Congenital Ichthyosis
- Pemphigus Foliaceus
- Epitheliotropic Lymphoma



1 Diffuse, delicate scaling on the abdomen of 6-month-old male golden retriever



5 Greasy scaling and crusting on ventral neck of 2-year-old basset hound



9 Severe inflammatory scaling in 11-month-old German shorthaired pointer



10 Focal inflamed crusting lesions in 3-year-old Pomeranian



2

Thick, focal facial crusting in 5-year-old Samoyed



3

Mild facial pruritus in 5-month-old Domestic Shorthair cat



4

Facial crusting and severe facial pruritus in 7-year-old cat



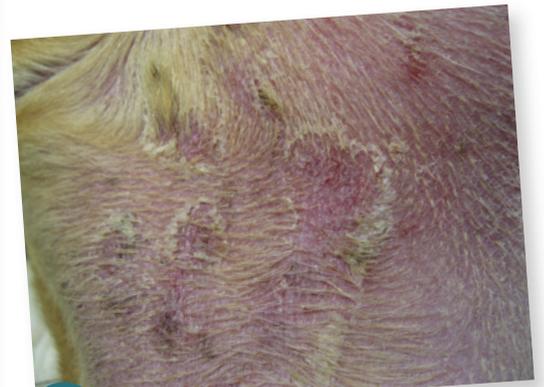
6

Scaling, erythema, and pruritus on ventrum of 13-year-old mixed-breed dog



7

Anorexia and difficult mobility in 9-year-old Shetland sheepdog



8

Scaling lesions on medial thigh and abdominal area of 5-year-old yellow Labrador retriever



11

Severe pruritus of the pinna in 6-year-old black Labrador retriever



12

Facial scaling and crusting in 8-year-old shar-pei crossbreed



13

Mild pruritus and marked scaling in 4-year-old cocker spaniel

CONTINUES

SCALING & CRUSTING SKIN DISEASE: ANSWERS & EXPLANATIONS



Congenital Ichthyosis

This disease is an uncommon hereditary and primary cornification defect in golden retrievers. This image shows the characteristic large and delicate “rice paper” scales on the trunk, generally without inflammation or pruritus, that begin at or near birth.



Zinc-Responsive Dermatitis

Though not typically related to dietary deficiency, one syndrome of this disease often afflicts arctic breeds, producing thick-crusting plaques, frequently around the facial area and sometimes around the elbow, hocks, or genitals. Another syndrome of this disease can occur in rapidly growing puppies with zinc-deficient diets. Biopsy will yield definitive diagnosis.



Dermatophytosis

One classic appearance of dermatophytosis in a young animal is alopecia and fine scaling on the face and forelimbs. However, many other clinical presentations are possible, especially in cats. Conducting a fungal culture is often part of the routine evaluation of feline patients with skin disease.



Staphylococcal Pyoderma

This picture shows characteristic coalescing epidermal collarettes, which are the result of ruptured pustules. Note the circular nature of lesions with the ring of scaling surrounding them, along with central erythema and hyperpigmentation.



Exfoliative Cutaneous Lupus Erythematosus

This breed-specific hereditary disease impacting German shorthaired pointers presents early in life as very severe with whole-body scaling and inflammatory lesions. Readers who recognized this rare, recently reported disease deserve a “gold star” indeed!



Calcinosis Cutis

After receiving multiple injections of a long-acting glucocorticoid, this dog developed the characteristic firm, inflamed, well-circumscribed focal crusts with a raised, sometimes “whitish” appearance on the surface.

See Aids & Resources, back page, for references & suggested reading.



4

Food Allergy

Though food allergy has a variety of appearances, a common presentation in cats is severe pruritus of the head and neck. This case includes inflammation, secondary scaling, and crusting in the periocular region. Note that the ears and bridge of the nose are unaffected (as would be common in facial pemphigus foliaceus).



5

Malassezia (Yeast) Dermatitis

The moist, greasy nature is typical of *Malassezia* dermatitis, as is the ventral neck location. Basset hounds are especially predisposed to this affliction. Skin cytology is a must for this patient.



6

Epitheliotropic Lymphoma

Though appearances of this disease can vary, the presence of diffused scaling patches and moderate-to-severe erythema is typical. These patients are often remarkably healthy except for their skin. Onset in an older dog with no previous history of skin disease and with no response to treatment is suspicious for this disease: skin biopsy is indicated and will confirm a diagnosis.



7

Superficial Necrolytic Dermatitis (Hepatocutaneous Syndrome)

This syndrome develops in dogs with chronic liver disease or glucagon-secreting pancreatic tumors; thus clinical illness is typical. Metabolic alterations result in crusting ulcerated lesions frequently in the groin area, extremities, and footpads (which may be sore, cracked, or fissured). Clinical appearance can be similar to pemphigus foliaceus: skin biopsy and systemic evaluation are necessary.



11

Sarcoptic Mange (Scabies)

This disease typically produces severe pruritus of the ventrum, pinnae, elbows, and hocks. Similar looking itchy and crusted ear margins should always prompt a search for mites—which might be difficult to find—and prospective treatment if mites are not identified.



12

Pemphigus Foliaceus

Note prominent crusting and scaling on the bridge of the nose and ears; the presence of depigmentation and ulceration of the nasal planum is a clue that one of the autoimmune diseases is a strong possibility. Biopsy is indicated.



13

Primary Seborrhea

Diffuse scaling of the entire trunk area is typical in this predisposed breed. If any secondary infections are present, they should be treated prior to biopsy. Skin biopsy of the scaling area is often helpful in establishing a diagnosis of a primary cornification defect and ruling out other conditions that may have a similar appearance.

THE NEXT STEP...

For more on treating dermatologic afflictions, see **Topical Therapies for Skin Disease** by Dr. Rosanna Marsella in the June 2011 issue of *Clinician's Brief* at cliniciansbrief.com/journal