



Vesiculopustular Dermatoses

(Skin Disorders Characterized by Blisters
and/or Pustules)

Basics

OVERVIEW

- “Vesiculo-” refers to vesicles; “pustular” refers to pustules; “dermatoses” is the plural of “dermatosis,” which is used to describe any skin abnormality or disorder
- Vesicle—blister; small, circumscribed elevation of the outer layer of the skin (known as the “epidermis”) filled with clear fluid
- Pustule—small, circumscribed elevation of the outer layer of the skin (epidermis) filled with pus

SIGNALMENT/DESCRIPTION OF PET

Species

- Dogs
- Cats

Breed Predispositions

- Lupus erythematosus—collies, Shetland sheepdogs, and German shepherd dogs may be more susceptible than other breeds
- Pemphigus erythematosus—collies and German shepherd dogs may be more susceptible than other breeds
- Pemphigus foliaceus—Akitas, chow chows, dachshunds, bearded collies, Newfoundlands, Doberman pinschers, and schipperkes may be more susceptible than other breeds
- Bullous pemphigoid—collies and Doberman pinschers may be more susceptible than other breeds
- Dermatomyositis—young collies and Shetland sheepdogs
- Subcorneal pustular dermatosis—schnauzers affected most frequently
- Linear IgA dermatosis—dachshunds exclusively

Mean Age and Range

- Dermatophytosis (fungal skin infection)—young pets

SIGNS/OBSERVED CHANGES IN THE PET

- Depend on disease
- Hair loss (known as “alopecia”) and reddened skin (known as “erythema”)
- Presence of vesicles (blisters; small, circumscribed elevations of the outer layer of the skin filled with clear fluid)
- Presence of pustules (small, circumscribed elevations of the outer layer of the skin filled with pus)
- Loss of pigment of the skin and/or hair (known as “depigmentation”)

CAUSES

- Systemic lupus erythematosus (SLE; auto-immune disease in which body attacks its own skin and possibly other organs)
- Discoid lupus erythematosus (DLE; auto-immune disease involving the skin only, usually the face)
- Bullous pemphigoid (auto-immune disease with ulceration of the skin and/or moist tissues [known as “mucous membranes”] of the body)
- Pemphigus vulgaris (severe auto-immune disease with ulceration of the mouth, junction between the moist tissues [mucous membranes] and skin, and skin)
- Dermatomyositis (inflammatory disorder that affects the skin and muscles) in collies and Shetland sheepdogs
- Skin infection involving the surface or top of the skin (known as a “superficial skin infection”) characterized by the presence of pus (known as “pyoderma”)—bacterial skin infection involving the areas of the body with sparse hair coat (known as “impetigo”), superficial spreading pyoderma, superficial bacterial infection/inflammation of the hair follicles (known as “bacterial folliculitis”), canine or feline acne
- Pemphigus complex—pemphigus foliaceus, pemphigus erythematosus, panepidermal pemphigus (auto-immune skin diseases)
- Subcorneal pustular dermatosis (skin disease of unknown cause characterized by the presence of pustules)
- Dermatophytosis (fungal skin infection)
- Demodectic mange (demodicosis)
- Sterile eosinophilic pustulosis (skin disorder characterized by the presence of eosinophils in the pustules; “eosinophils” are a type of white-blood cell; they are involved in allergic responses by the body and are active in fighting larvae of parasites)
- Linear immunoglobulin A (IgA) dermatosis (a skin disorder seen only in dachshunds in which sterile pustules are located just below the surface of the skin; IgA is present in the lowest layer of the epidermis [known as the “basement membrane”]; “immunoglobulins” are proteins produced by the cells of the immune system; they include the antibodies; they are categorized into classes, including IgA)
- Cutaneous drug eruptions (skin condition caused by adverse reaction to medications)
- Epidermolysis bullosa—inherited disorder characterized by blisters; skin is fragile and easily injured, even with minor trauma

RISK FACTORS

- Drug exposure—auto-immune diseases (systemic lupus erythematosus and bullous pemphigoid)
- Pyodermas (skin infection characterized by presence of pus) or bacterial infection/inflammation of the hair follicles (known as “bacterial folliculitis”) usually are secondary to a predisposing factor (such as demodectic mange, inadequate levels of thyroid hormone [known as “hypothyroidism”], allergy, or steroid administration)
- Sunlight or ultraviolet light—pemphigus erythematosus, bullous pemphigoid, SLE, discoid lupus erythematosus), and dermatomyositis (inflammatory disorder that affects the skin and muscles in collies and Shetland sheepdogs)

Treatment

HEALTH CARE

- Periodic bathing with an antimicrobial shampoo—helps remove surface debris and control secondary bacterial infection/inflammation of the hair follicles (bacterial folliculitis)
- Usually treated as an outpatient
- Systemic lupus erythematosus, pemphigus vulgaris, and bullous pemphigoid may be life-threatening and require inpatient intensive care

SURGERY

- Surgical biopsy may be necessary to determine diagnosis

Medications

Medications presented in this section are intended to provide general information about possible treatment. The treatment for a particular condition may evolve as medical advances are made; therefore, the medications should not be considered as all inclusive

- Bacterial folliculitis (bacterial infection/inflammation of the hair follicles)
- Antibiotics—cephalexin, clindamycin, amoxicillin-clavulanic acid
- Based on bacterial culture and sensitivity results
- Pemphigus complex/bullous pemphigoid (auto-immune diseases)
 - ♦ Chemotherapeutic drugs—azathioprine or chlorambucil; used to decrease the immune response
 - ♦ Tetracycline and niacinamide combination
 - ♦ Cyclosporine—used to decrease the immune response
- Subcorneal pustular dermatosis
 - ♦ Dapsone—until remission (usually 1–4 weeks); then tapered as directed by your pet's veterinarian
 - ♦ Sulfasalazine (Azulfidine)—until remission; then as needed as directed by your pet's veterinarian
- Linear IgA dermatosis
 - ♦ Prednisolone—until remission; then taper as directed by your pet's veterinarian
 - ♦ Dapsone—until remission; then taper and give as needed (as directed by your pet's veterinarian); individual pets may respond to one drug and not the other
- Sterile eosinophilic pustulosis
 - ♦ Prednisolone—until remission (usually 5–10 days); then as needed to prevent relapses (as directed by your pet's veterinarian); usually long-term treatment is required

Follow-Up Care

PATIENT MONITORING

- Dapsone—monitor bloodwork (complete blood count [CBC], platelet count, and liver enzymes) every 2 weeks initially and if any clinical side effects develop
- Long-term sulfasalazine therapy—monitor tear production
- Treatment to decrease the immune response (known as “immunosuppressive therapy”)—monitor every 1–2 weeks initially; then every 3–4 months during maintenance therapy

POSSIBLE COMPLICATIONS

- Depend on underlying cause

EXPECTED COURSE AND PROGNOSIS

- Depend on underlying cause
- Systemic lupus erythematosus, pemphigus vulgaris, and bullous pemphigoid may be life-threatening

Notes

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