

# Canine Pemphigus Foliaceus

**P**emphigus foliaceus, the most common autoimmune dermatosis in dogs, presents with primary large, superficial pustules. Pustules may be punctate or span multiple follicles, and contents may appear translucent to yellow (**Figure 1**). Because they are thin-roofed, pustules tend to rapidly rupture and form crusts with underlying erosions.

Preceding the eruption of lesions, which often develop in waves, some patients experience a period of lethargy and inappetence. When a secondary bacterial infection develops or the lesions affect the footpads, coalescing regions of exfoliation and adherent crusts can become tender and exudative.

Several disease patterns are described, including a facial (classic butterfly) pattern affecting the nasal planum, dorsal muzzle, and periorbital and pinnal areas, as well as on the footpad margins and trunk (**Figures 2 and 3**).

Antikeratinocyte antibodies, which have been identified in cases of canine pemphigus foliaceus, can cause loss of intercellular adhesion in the upper layers of the stratum corneum (acantholysis), leading to vesicle and pustule formation. Factors considered to be triggers for antikeratinocyte antibody induction include genetics and drugs (ie, antibiotics, phenobarbital, metaflumizone).

1  
Flaccid pustule of pemphigus foliaceus spanning multiple follicles.



Definitive diagnosis requires histopathologic examination of skin biopsy tissue.



2

Classic lesions of pemphigus foliaceus with thick crusts on the rostral muzzle, nasal planum, dorsal muzzle, and periorbital regions (butterfly pattern).

(A) Yellow adherent crusts on the pinna of a Maltese dog with pemphigus foliaceus. Lesions developed on both surfaces of the pinnae, including glabrous areas. (B) Pinna of same patient after 4 weeks of therapy. Lesions that were originally large accumulations of crusts are now punctate crusted papules and pustules.



3

A



B

## DIAGNOSIS

Tentative diagnosis is possible by examining pustule contents. Pustule cytology should reveal individual to multiple immature and free-floating (acantholytic) keratinocytes as well as intact neutrophils and occasional eosinophils. Definitive diagnosis requires histopathologic examination of skin biopsy tissue. An intact pustule is preferable.

## TREATMENT

Treatment requires immunosuppressive therapy. Both single modality (ie, corticosteroid therapy) and multidrug treatment plans have been described, although concurrent use of corticosteroids with corticosteroid-sparing medications (eg, azathioprine) is recommended.

Especially during the induction phase of treatment, secondary bacterial infections must be controlled through oral antibiotics and topical antiseptic bathing. In cases complicated by prior antibiotic administration, exudate culture and

sensitivity testing may be required to select the appropriate medication.

In severe cases, bathing daily with a sulfur/salicylic acid shampoo to gently soak off crusts and exudates can significantly improve patient comfort. This also allows better assessment of the response to therapy. Once the disease is controlled, bathing can be reduced to once or twice weekly.

## PROGNOSIS

The prognosis for canine pemphigus foliaceus is fair to good. Cases benefit most after initial aggressive treatment to induce remission, followed by reduced therapy to maintain control of the disease (Figure 3).

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

## FOR MORE...

Look for the companion article **Feline Pemphigus Foliaceus** by Dr. Werner in an upcoming issue.