

# Crusty, Itchy Cat

Linda Messinger, DVM, Diplomate ACVD, Veterinary Referral Center of Colorado, Veterinary Skin & Allergy Specialists, PC



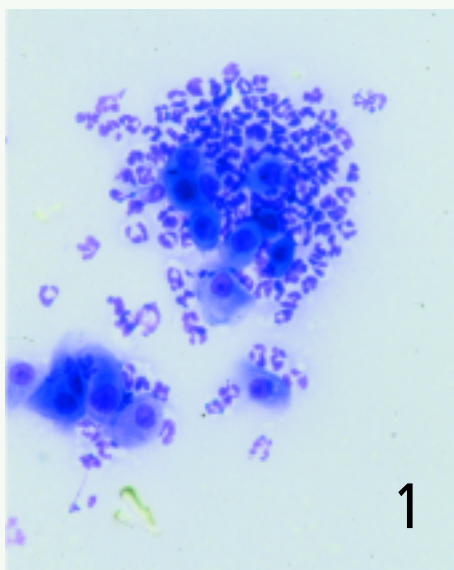
A 6-year-old, neutered male domestic shorthair cat presented with facial and pedal pruritus and dermatitis.

**History.** The owner described a 4-month history of a progressive but somewhat waxing and waning course of pruritus and dermatitis. The cat occasionally shook its feet. It had a partial response to antibiotics and had recently begun hiding under the bed. Diminished appetite was also noted.

**Physical Examination.** Findings were moderate crusting on the concave and convex ear pinnae, bridge of the nose, muzzle, periocular area, and preauricular area; mild erythema of the concave ear pinnae, preauricular area, and periocular area; mild paronychia crusting and purulent exudate; and rare pustules on the concave ear pinna surfaces. A few excoriations were noted on the preauricular area. Otic canal examination was normal.

**Laboratory Work.** Pustule cytologic evaluation, dermatophyte culture, skin biopsies, CBC, and serum chemistry panel. Cytologic evaluation revealed numerous nondegenerative neutrophils and a moderate number of acantholytic cells (**Figure 1**). Dermatophyte culture was pending. CBC showed mild leukocytosis with mild neutrophilia. Chemistry panel was within normal limits. Skin biopsies were performed because of suspicion of an immune-mediated dermatosis on the basis of history, clinical examination, and pustule cytologic findings.

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Pustule cytology reveals acantholytic cells and nondegenerative neutrophils.

#### ASK YOURSELF...

- What are the differential diagnoses?
- What are acantholytic cells?
- What are the best lesions to biopsy?
- Why should you avoid azathioprine in this patient?

## PEMPHIGUS FOLIACEUS . DIAGNOSTIC REPORT

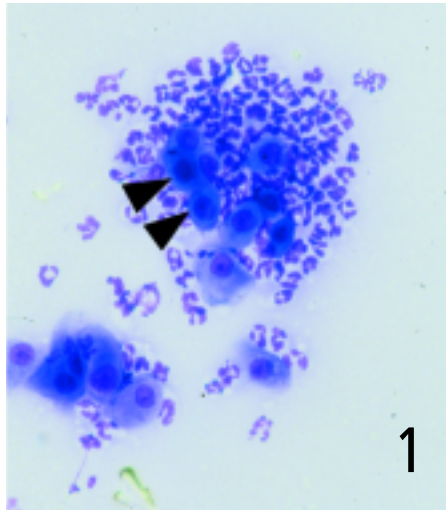
### Diagnosis: Pemphigus foliaceus

**Interpretation and Treatment.** Dermato-histopathologic results revealed subcorneal and intraepidermal neutrophilic pustules that often spanned several hair follicles. In addition, the pustules contained many acantholytic cells. These results were consistent with pemphigus foliaceus. Dermatophyte culture was negative.

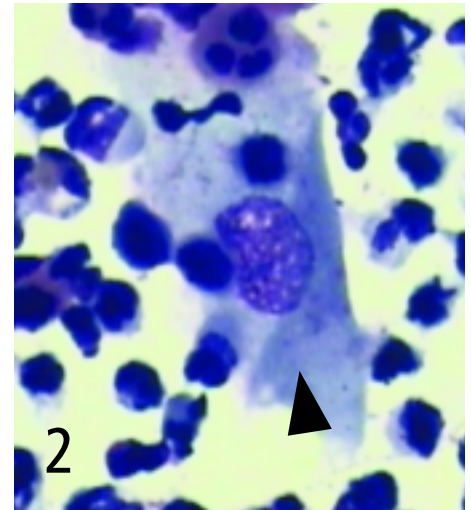
A dermatophyte culture should be done for all patients suspected of having pemphigus foliaceus, as dermatophytosis may mimic pemphigus foliaceus both clinically and histologically. Many cats with pemphigus foliaceus are pruritic; thus the disorder is often mistaken for allergic skin disease. Although cats may present with pemphigus foliaceus anywhere on the body, it is most common on the head (especially the ear pinnae), followed by the feet. The primary clinical lesion is the pustule; however, because the pustular phase is often transient, crusts, scales, erosions, and ulcers are most commonly noted on dermatologic examination.

Treatment was initiated with prednisone (2.2 mg/kg Q 12 H PO) and chlorambucil (0.1 to 0.2 mg/kg/day PO). Recheck examinations were scheduled every 2 weeks for the first 2 months. In addition, CBCs and platelet counts were monitored every 2 weeks for the first 8 weeks of therapy. At the initial 2-week recheck, lesions had improved by 90% overall. The prednisone dose was tapered by 25%. Because the initial CBC and platelet count showed mild to moderate neutropenia, dosing of chlorambucil was decreased to every other day. CBC and platelet counts were within normal limits thereafter.

Continued improvement was noted for all lesions, except for two small crusts on the right, concave, distal ear pinna. Rather than continuing the patient on high doses of steroids, the remaining lesions were treated with topical fluocinolone and dimethyl sulfoxide once daily as needed. After the initial 8 weeks, rechecks, CBCs, and platelet counts were done once



Acantholytic cells (arrowheads). Note the rounded cellular shape. Nondegenerative neutrophils are also present.



A normal squamous epithelial cell (arrowhead). Note the angular shape and the relatively smaller nucleus when compared to the cytoplasm.

Courtesy Karen Moriello, DVM

#### DID YOU ANSWER...

- Dermatophytosis, ectoparasites, allergies, bacterial folliculitis, other immune-mediated skin diseases, cutaneous drug eruption, neoplasia
- Acantholytic cells are keratinocytes that have lost their intercellular adhesion and undergone acantholysis, resulting in rounded epidermal cells with normal nuclei (Figure 1). Their presence is suggestive of pemphigus foliaceus. Normal squamous epithelial cells are typically more angular with a relatively smaller nucleus or no nucleus (Figure 2).
- Pustules are the best lesions to biopsy. Crusts (especially those that are moist) may contain microscopic pustules; a biopsy may be done on crusts when pustules are not present. If ulcers are present, a biopsy should be taken of the ulcer margins. Several representative lesions should be sampled. The site should not be scrubbed or prepared before biopsy. Biopsy specimens should be placed in 10% formalin. The specimen should not be allowed to freeze.
- Azathioprine should not be used in cats because they are more prone to its toxic effects, including fatal leukopenia and thrombocytopenia.

monthly for 3 months and then every 3 to 4 months. Serum chemistry panels were also done periodically. The lower the steroid dose, the slower prednisone was tapered. The cat continued to do well, with occasional small, crusted lesions noted on the ear pinnae. These lesions were treated with fluocinolone and dimethyl sulfoxide once daily until remission, then as needed. ■

See Aids & Resources, back page, for references, contacts, and appendices.

#### Tx at a glance

- Immunosuppressive doses of prednisone
- Chlorambucil to achieve a more durable remission and reduce the need for higher steroid doses
- "Spot treatment" with topical steroid products for stubborn or residual lesions