

## Features

Flea allergy dermatitis is a common skin disease in dogs and cats sensitized to flea bites. Symptoms are usually seasonal (warm weather months and in the fall) in temperate zones and often nonseasonal in subtropical and tropical areas.

## Dogs

Lesions include pruritic, papular, crusting eruptions with secondary erythema, seborrhea, alopecia, excoriations, pyoderma, hyperpigmentation, and lichenification. The distribution typically involves the caudodorsal lumbosacral area, dorsal tail head, caudomedial thighs, abdomen, and flanks.

## Cats

Patients commonly present with pruritic miliarial dermatitis with secondary excoriations, crusting, and alopecia of the neck, dorsal lumbosacral area, caudomedial thighs, and ventral abdomen. Other symptoms include symmetrical alopecia secondary to excessive grooming and eosinophilic granuloma complex lesions.

## Top Differentials

Differentials include atopy, food hypersensitivity, other ectoparasites (scabies, cheyletiellosis, pediculosis, demodicosis), superficial pyoderma, dermatophytosis, demodicosis, and *Malassezia* dermatitis.

## Diagnosis

1. History and clinical findings; rule out other differentials
2. Visualization of fleas or flea excreta on body: may be difficult on flea-allergic animals as flea-allergic animals are very effective at removing fleas through grooming
3. Allergy testing (intradermal, serologic): positive skin test reaction to flea antigen or positive serum immunoglobulin (Ig)E antiflea antibody titer is highly suggestive, but false-negative results are possible
4. Dermatohistopathology (nondiagnostic): varying degrees of superficial or deep perivascular to interstitial dermatitis, with eosinophils often predominating
5. Response to aggressive flea control: symptoms resolve

## Treatment and Prognosis

1. Affected and all in-contact dogs and cats should be treated with adulticidal flea sprays, spot-on solutions, or dips every 7 to 30 days, as instructed on the label. Products that contain fipronil, imidacloprid, or selamectin are especially effective when used topically every 3 to 4 weeks. In heavily flea-infested environments, fleas may continue to be found on animals in spite of topical flea control. In these cases, affected animals should also be administered nitenpyram at a minimum dose of 1 mg/kg PO every 24 to 48 hours for 1 to 2 weeks, or until fleas are no longer seen. The environment should be treated (see number 5 below).
2. Topical or systemic insect growth regulators (lufenuron, pyriproxyfen, methoprene) may be effective alone or used in combination with adulticidal therapy.
3. Flea control therapy should be continued from spring until first snowfall in temperate areas and year-round in warm climates.
4. Flea-allergic animals should be treated prophylactically with nitenpyram, minimum dose 1 mg/kg PO, on any day that an encounter is planned with other potentially flea-infested animals (e.g., a visit to the groomer, veterinary hospital, park, another household with animals). No more than one treatment with nitenpyram should be administered per day.
5. In heavily flea-infested environments, areas where pets spend the most time should be treated. Indoor premises should be treated with an insecticide and an insect growth regulator (e.g., methoprene, pyriproxyfen). The outdoor environment should be treated with insecticidal or biologic products designed for such use.
6. To help resolve pruritus, consider glucocorticoid therapy. Oral prednisone 0.5 mg/kg (dogs) or 1.0 mg/kg (cats) should be administered every 12 hours for 3 to 7 days, then every 24 hours for 3 to 7 days, then every 48 hours for 3 to 7 days. Alternatively, cats may be given repositol methylprednisolone acetate 20 mg/cat or 4 mg/kg SC once or twice at a 2- to 3-week interval.
7. For secondary pyoderma, appropriate systemic antibiotics should be administered for at least 3 to 4 weeks.
8. The prognosis is good if strict flea control is practiced. Fleas may infest other in-contact animals and humans. They may carry blood-borne diseases in a manner similar to ticks.