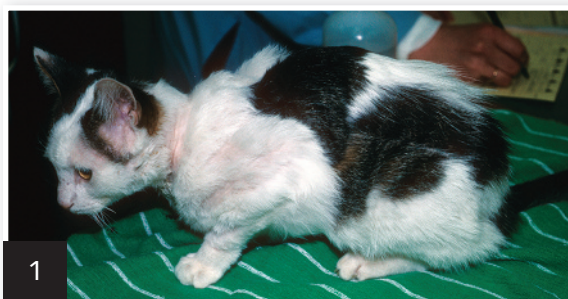


Chronic Pruritus in a Household of Cats

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Intensely pruritic cat

Ed, a 9-month-old, castrated, domestic short-haired cat, was presented for evaluation of chronic pruritus of 3 months' duration.

History

Ed's owner, involved in breeding and showing Devon rex cats, had 7 intact female cats between 1 and 8 years of age. All cats lived indoors and never left home except for shows or breeding. All were mildly to severely pruritic; Ed was the most severely affected (Figure 1).

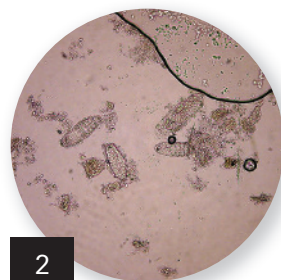
Vaccination status was current, but flea control was not used (to avoid potential focal hair loss). The owner did not report any skin lesions on her own body but did mention that pruritus had developed in all cats about 4 weeks after Ed had been adopted at a cat show at 5 months of age; Ed and the 2 cats present at a show had been kept separate for 10 days to ensure none had contracted an upper respiratory infection. The owner reported that all cats had GI complications (eg, constipation, hairballs) and was concerned they had a food allergy; she provided a fecal specimen from a community litter box for testing.

Physical Examination

Except for a large colon filled with fecal material, Ed's physical abnormalities were strictly dermatologic. Palpation of the dorsal aspect of the hair coat revealed stubbly hairs compatible with barbering. Patchy hair loss was present on the lateral thorax, along with a large focal area of apparently noninflammatory alopecia on the ventral abdomen; close inspection revealed follicular plugging. Excessive scaling was present throughout. The owner indicated that the other cats' dermatologic signs mostly resembled Ed's.

Laboratory Testing

Fecal flotation was conducted on the litter box sample (Figure 2); mites were evident.



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Findings on fecal flotation

Ask Yourself



Based on fecal flotation findings, what is the best diagnostic recommendation?

- Treat Ed for mites and, if there is a positive response, treat the other cats.
- Conduct a Wood's lamp examination and fungal culture on Ed, and pending those results, initiate treatment.
- Conduct a Wood's lamp examination and fungal culture on Ed, and initiate treatment.
- Conduct a Wood's lamp examination and fungal culture on Ed, and initiate treatment for Ed and the other cats after they have been examined.

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Correct Answer

D. Conduct a Wood's lamp examination and fungal culture on Ed, and initiate treatment for Ed and the other cats after they have been examined.

Findings & Diagnostic Implications

The fecal flotation showed several *Demodex gatoi* mites. Unlike other *Demodex* spp mites in cats and dogs, this mite is highly contagious, and the hallmark clinical sign is pruritus.^{1,2} *D gatoi* mites can be difficult to find for many reasons:

- Small, translucent mites can be overlooked on a skin scraping.
- Mites may not be prevalent where the cat is grooming, possibly explaining why mites are found on fecal flotation and not on skin scrapings; hair pluckings from difficult-to-groom areas may prove more fruitful.
- Because pruritus is presumably a hypersensitivity reaction, even a few mites can cause intense pruritus.

There are several major causes of pruritus in cats (eg, parasites, infections, allergies). In a survey of more than 500 cats with chronic pruritus, the most common cause was flea allergy dermatitis.³ The second most common causes included feline

demodicosis and dermatophytosis, emphasizing the need to perform response-to-treatment trials in cats with chronic pruritus and conduct core diagnostics (eg, skin scrapings, hair pluckings, flea combings, fungal culture) to rule in or out other causes. Of the survey cats diagnosed with allergic skin disease, approximately 12% had food allergy.³ That Ed and his housemates all had pruritus from food hypersensitivity is unlikely; the GI signs are likely secondary to pruritus and overgrooming.

Outcome

The history, timeline, and owner description were highly indicative of contagious disease—in this case, feline demodicosis from *D gatoi* infestation. Recommendations for contagious skin diseases include treating *all* in-contact animals. Also, the remaining 7 cats should all be examined before treatment to ensure that no complicating medical problems will make a one-size-fits-all treatment inappropriate, to obtain accurate body weights, and to corroborate that all cats are similarly affected. Legal issues regarding examination of the other cats are self-evident.

All the cats were treated with lime sulfur q1wk for 6 weeks. The owner reported a noticeable decrease in pruritus after 1 week.

TX at a Glance^{1,2}

Excluding diagnosis of any other concurrent disease, all 8 cats should be treated. Most will show some improvement within 1–3 weeks; treatment generally lasts 6 weeks.

- **Lime sulfur** (topical leave-on): Considered the safest treatment, administered q4–7d for 6 weeks. Higher concentration (ie, 8 ounces of sulfur in 120 ounces of water, mixed thoroughly; cats tolerate warm water better) is recommended for quicker resolution. Solution should thoroughly soak coat and skin; a rose or garden sprayer can be used for administration. Cats should not be rinsed and should be kept warm in a well-ventilated area.
- **Aqueous ivermectin**: 0.2–0.3 mg/kg PO q24h or mixed in canned cat food for upward of 6 weeks. Cats can develop neurotoxicosis; toxicosis signs include lethargy, ataxia, hypersalivation, tremors, mydriasis, blindness and bradycardia.
- **Doramectin** (Dectomax injectable, zoetis.com): 600 µg/kg SC q1wk. It has the potential for adverse effects similar to those cited for ivermectin.
- **10% moxidectin & 2.5% imidacloprid** (Advantage Multi, bayer-ah.com): This has only been approved for use in dogs, but the author has successfully treated with this in a small number of cats at q7d or q2wk.



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Recommended Diagnostics

Excluding the feline dermatology mantra that “it is ringworm until proven otherwise,” this case presented two reasons to conduct a Wood’s lamp examination and fungal culture: lesions developed after introduction of a kitten into the household and after reintroduction of two cats that had been at a show; both are common opportunities for introduction of contagious diseases.

Although fungal culture is definitive, a Wood’s lamp examination may reveal positive fluorescence with direct examination, confirming the diagnosis (or possibly revealing multiple diagnoses). Wood’s lamp examinations are usually inexpensive and can be performed on all cats at examination.

Arguably, all cats should have a sample cultivated for fungal infection; however, after 3 months of cohabitation, fungal culture of a sample from Ed will likely be representative. Examination of the other cats and owner constraints can help determine the need for additional cultivation; if treatment fails, this can be revisited. Starting lime sulfur treatment while waiting for culture results can be beneficial. ■ **cb**

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



The Take-Home

- *D gatoi* (a short, blunted mite) infestation is a common differential for any cat with chronic pruritus, especially cats with symmetric alopecia. Mite infestation should be ruled out by response-to-treatment trial before allergy testing or food trial is pursued.
 - This species is highly contagious and should be suspected in cats that are at risk or in households with multiple pruritic cats.
 - Infestations are often diagnosed via response-to-treatment trials.
- Another well described species of mites in cats is *D cati* (long and slender).
 - *D cati* is not contagious and is usually associated with other medical problems (eg, diabetes mellitus, immunosuppression, excessive glucocorticoid use).
 - Presence of this mite should prompt examination for underlying illness.
- A third morphologically distinct mite (longer than *D gatoi* but shorter and wider than *D cati*) has been described in cats.⁴⁻⁶ Determining whether this is a new species will require molecular testing. It has been seen in association with *D cati* and *D gatoi* infestations and underlying illnesses.

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