

FELINE PRACTICE — DERMATOLOGY

In 1987, a small number of feral resort cats in the upper Florida Keys were presented with alopecic pruritic skin disease, with signs of alopecia of the face, ear tips, and distal extremities, and hyperpigmented, hypertrophied, and hyperplastic skin. Skin scraping revealed the presence of the mite *Notoedres cati*, and blood data revealed leukocytosis and eosinophilia. Treatment consisted of pyrethrin insecticide and ivermectin administration. Cases are still being presented, with more than 500 cats treated to date.

A PRACTITIONER REPORT

A Notoedric Mange Epizootic in an Island's Cat Population

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Notoedres cati

Notoedres cati is the etiologic mite causing feline scabies. It is an arachnid mite in the Order *Acarina*, Suborder *Astigmata*, Family *Sarcoptidae*.¹ It has a 21-day, four-stage life cycle. The female mite burrows tunnels and molting pockets in the epidermis. The eggs, six-legged larva, eight-legged nymphs, and adult male mite reside in these tunnels. The male mite dies after copulation. The burrowing female causes a hypersensitivity reaction responsible for the pruritus seen with the disease. The mite is highly contagious among cats. Young cats and chronically infected cats become debilitated. Human disease with pruritic papular lesions of the arms, legs, and trunk have been reported and one instance was seen in this outbreak.²

Case History

In 1987, a small number (10) of feral cats, mascoats at an island resort, were presented to my clinic with alopecic pruritic skin disease. Young animals evidenced mild pruritus and alopecia of face, ear tips, and distal extremities. Older cats evidenced

more extreme skin changes (Fig. 1). Hyperpigmented, hypertrophied, hyperplastic skin, secondary infection, severe pruritus, and self-mutilation were present. Signs were multiple and dependent upon the degree of parasitism (Table 1).

Skin scrapings of lesions revealed large numbers of the small culprit mite. *Notoedres* (female size approximately 240 × 200 microns) is smaller than *Sarcoptes*, has a dorsal anus, prominent body striations, and short legs with unsegmented pedicles (Figs. 2 & 3). Skin biopsy demonstrated epidermal penetration of the mites, the skin being reactive, acanthotic, and hyperkeratotic (Fig. 4). Baseline blood data from 12 randomly selected cats revealed leukocytosis and absolute and relative eosinophilia (see Table 1). These 12 cats were the only cats tested for feline leukemia virus (FeLV) (DiaSystems® FeLV Test Kit: Fermenta Animal Health Co., Kansas City, Mo.). All were negative.

This outbreak began in a feral cat population at an island resort in the upper Florida Keys, a chain of bridge-connected islands 60 miles south of Miami. From this first cluster of cases, cats from other island resorts, marinas, and restaurants were examined and treated. Eventually most neighborhoods and en-

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