

# FELINE DERMATOLOGY

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In primary conditions of the dermis, which occur in over 10% of feline patients, exact etiology is often difficult to determine since self-mutilation, allergies and hormonal and nutritional factors can be involved. Diagnostic aids are usually limited to skin scrapings, cultures and use of the Wood's light, but biopsy has long been neglected and histochemical technics have only recently been developed.

Special stains such as lactophenol, cotton blue or Parker ink can be used for hair with suspected fungal infections and gram stains are occasionally indicated. Bacterial and fungal media should both be included in cultures. Wood's light will fluoresce *Microsporum canis* on infected hairs because of the pigment pteridine which is a by-product of the fungal growth.

*Otodectes cyanotis* spends its entire life cycle on the host. It feeds by piercing the skin and sucking lymph, causing irritation and a dark brown waxy exudate. The mites can live several days in exudate on the otoscope. Repeated ear treatments accompanied by topical insecticidal powder or baths are necessary.

*Notoedres cati* burrow into the epidermis and cause small circular lesions on the head, ears and neck, rarely on other parts of the body. The mite feeds on lymph and epithelium, causing intense itching and crusting of the skin. Scraping the crusted margin of the ear is most likely to reveal the mite. Removal of the crusts and then treatment with Led-O-San (Cyanamid), sulfur ointments, lime-sulfur solutions, 0.2% malathion or Canex (PitmanMoore) is indicated.

The *Cheyletiella* mite spends its life cycle on the host, producing debris and nit-like structures attached to the hairs, without dermal lesions. Insecticidal shampoos are effective. Larvae of the harvest mite *Trombicula alfreddugesi* (chiggers) cause intense pruritus, self-mutilation and moist erythema. The small red-orange mite can be found at the base of hair shafts. Steroids, insecticidal baths and spraying the yard with 1% chlordane are recommended.

*Cuterebra* larvae burrow into subcutis and produce a nodule with a central breathing pore. The nodule must be opened and the larvae removed from the cavity by forceps, whereupon the lesion will heal in 7 to 10 days. If undisturbed the larvae will live up to a month in the host.

Endocrine alopecias are characterized by gradual bilaterally symmetrical hair loss, especially on the posterior and medial aspects of the thighs of castrated males. The dry and brittle hairs epilate easily and occasionally a papular erythematous eruption occurs. Hypothyroidism can cause diffuse alopecia, with cholesterol levels above 150 mg/100 ml, and can be controlled with Cytobin (Norden) or thyroid extract.

Ulcerated areas around the face or muzzle may be squamous cell carcinomas, sometimes as a sequel to actinic dermatitis in white cats or to rodent ulcers. The etiology of eosinophilic granuloma is unknown but may involve trauma, bacterial infection and sensitization. There is eosinophilic infiltration and crescent-shaped surface ulceration with a scooped-out appearance on the margins of upper lips. Systemic eosinophilia and general lymphadenopathy are common. The granulomas may occur bilaterally, and surgical removal followed by systemic steroid and antibiotic therapy is recommended.

*Microsporum canis* is responsible for 98% of ringworm in cats. Age, deficient nutrition, poor husbandry and a warm humid environment are predisposing factors. The infection is characterized by gradually enlarging circular lesions and broken stumps of hair, primarily in the head area. Diagnosis is based on Wood's lamp examination, finding spores on hair surfaces, and positive cultures. Treatment includes hair removal, topical fungicides such as captan, lime sulfur dip, iodine, salicylic acid and Cerbinol (Pitman-Moore) and griseofulvin for 3 to 4 weeks.

Subacute or chronic thallium poisoning usually results from ingestion of rodents poisoned by thallium and causes reddening, crusting, peeling and alopecia, starting on the ears or lips and gradually spreading. Microscopic changes include parakeratosis, acanthosis, dilation of hair follicles, focal inflammation, hyperemia and edema.