Malasseziasis (*Malassezia* dermatitis)

Features

Malassezia pachydermatis is a yeast that is normally found in low numbers in the external ear canals, in perioral areas, in perianal regions, and in moist skin folds. Skin disease occurs in dogs when a hypersensitivity reaction to the organisms occurs, or when there is cutaneous overgrowth. In dogs, *Malassezia* overgrowth is almost always associated with an underlying cause, such as atopy, food allergy, endocrinopathy, keratinization disorder, metabolic disease, or prolonged therapy with corticosteroids. In cats, skin disease is caused by *Malassezia* overgrowth that may occur secondary to an underlying disease (e.g., feline immunodeficiency virus, diabetes mellitus) or an internal malignancy. In particular, generalized *Malassezia* dermatitis may occur in cats with thymoma-associated dermatosis or paraneoplastic alopecia. Malasseziasis is common in dogs, especially among West Highland White terriers, Dachshunds, English setters, Basset hounds, American cocker spaniels, Shih tzus, Springer spaniels, and German shepherds. These breeds may be predisposed. Malasseziasis is rare in cats.

Dogs

Moderate to intense pruritus is seen, with regional or generalized alopecia, excoriations, erythema, and seborrhea. With chronicity, affected skin may become lichenified, hyperpigmented, and hyperkeratotic. An unpleasant body odor is usually present. Lesions may involve the interdigital spaces, ventral neck, axillae, perineal region, or leg folds. Paronychia with dark brown nail bed discharge may be present. Concurrent yeast otitis externa is common.

Cats

Symptoms include black, waxy otitis externa, chronic chin acne, alopecia, and multifocal to generalized erythema and seborrhea.

Top Differentials

Differentials include other causes of pruritus and seborrhea, such as demodicosis, superficial pyoderma, dermatophytosis, ectoparasites, and allergies.

Diagnosis

1. Rule out other differentials
2. Cytology (tape preparation, skin imprint): yeast overgrowth is confirmed by the finding of more than 2 round-to-oval, budding yeasts per high power field (100×). In yeast hypersensitivity, organisms may be difficult to find
3. Dermatohistopathology: superficial perivascular-to-interstitial lymphohistiocytic dermatitis with yeasts and occasionally pseudohyphae in keratin. Organisms may be few in number and difficult to find
4. Fungal culture: *M. pachydermatis*

Treatment and Prognosis

1. Any underlying cause must be identified and corrected.
2. For mild cases, topical therapy alone is often effective. The patient should be bathed every 2 to 3 days with shampoo that contains 2% ketoconazole (dogs only), 1% ketoconazole/2% chlorhexidine, 2% miconazole, 2% to 4% chlorhexidine, or 1% selenium sulfide (dogs only). For added effect, baths can be followed by an application of 2% lime sulfur dip, 0.2% enilconazole dip, or 1:1 dilution of white vinegar in water. Treatment should be continued until the lesions resolve and follow-up skin cytology reveals no organisms (approximately 2-4 weeks).
3. The treatment of choice for moderate to severe cases is ketoconazole 5 to 10 mg/kg PO with food every 12 to 24 hours, itraconazole (Sporonox) 5 to 10 mg/kg PO with food every 24 hours, or pulse itraconazole (Sporonox) (dogs) 5 to 10 mg/kg with food on 2 consecutive days each week. Treatment should be continued until lesions resolve and follow-up skin cytology reveals no organisms (approximately 2-4 weeks).
4. Alternatively, treatment with terbinafine 30 mg/kg PO every 24 hours for 2 to 4 weeks may be effective.
5. The prognosis is good if the underlying cause can be identified and corrected. Otherwise, regular once- or twice-weekly antifungal shampoo baths may be needed to prevent relapse. This disease is not considered contagious to other animals or to humans, except for immunocompromised individuals.

FIGURE 4-1 Malassezia. Severe alopecia, lichenification, and hyperpigmentation on the entire ventrum of a West Highland White Terrier. The yeast infection was secondary to allergic dermatitis.

FIGURE 4-2 Malassezia. Alopecia, erythema, and lichenification on the ventral neck of an allergic dog.

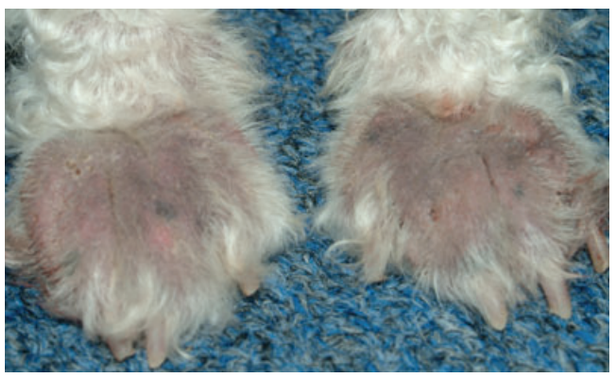

FIGURE 4-3 Malassezia. Pododermatitis caused by a secondary yeast infection demonstrates the alopecia and lichenification typical of *Malassezia* dermatitis.

FIGURE 4-4 Malassezia. Severe pododermatitis demonstrating the intense inflammatory response caused by the hypersensitivity reaction to the *Malassezia* organisms. The severe erythema, alopecia, and lichenification is are apparent.

FIGURE 4-5 Malassezia. The interdigital dermatitis in this patient was caused by the secondary *Malassezia* infection. The greasy, alopecic, inflamed skin in between the footpads is typical of yeast pododermatitis.

FIGURE 4-6 Malassezia. The brown discoloration around the base of the nails is a unique change typical of secondary *Malassezia* infections.