

DIAGNOSIS AND THERAPEUTIC MANAGEMENT OF MALASSEZIA DERMATITIS IN A CAT—ACASE REPORT

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Malassezia pachydermatis is a non-lipid dependant yeast organism which is a commensal and considered non pathogenic, but can become an opportunistic pathogen when the microclimatic factors are suitable or when the host defense mechanisms are impaired. A one year old female Persian cat weighing about 4.1 kg was presented to Veterinary Clinical Complex, College of Veterinary and Animal Sciences, Mannuthy, with the history of hair loss, skin lesions on face, tail, hind legs and dorsum of the body. On clinical examination, areas of alopecia with erythema, desquamation and seborrhoea were observed. Impression smears from the lesions stained with field stain revealed presence of numerous budding yeast cells. The treatment was started with Fluconazole@ 5mg/kg BW OD, topical miconazole shampoo and an omega 3 and omega 6 containing skin tonic for 2 week. After one week of treatment animal showed remarkable clinical improvement and the treatment was continued for two more week. The animal showed uneventful recovery after 4 week.

Keywords: Malassezia dermatitis, Budding yeast, Fluconazole, Miconazole.

The genus malassezia consists of lipophilic yeasts, which are components of the cutaneous microflora of many warm-blooded animals including humans. This genus has recently been revised, based on morphological, physiological and molecular criteria, to include six lipid-dependent and one non lipid dependent species. The lipid-dependent yeast is represented by *M. furfur*, *M. globosa*, *M. obtusa*, *M. restricta*, *M. slooffiae* and *M. sympodialis*. However, new lipid-dependent species have been recently identified, including *M. japonica*, *M. yamatoensis*, *M. dermatis* and *M. nana*; the latter two are closely related to *M. sympodialis*. (Ordeix *et al.*, 2007). *Malassezia pachydermatis*, a nonlipid-dependent yeast, has been considered to be a zoophilic yeast because it is frequently isolated from wild and domestic animals, particularly dogs and cats. In dogs and cats, *M. pachydermatis* colonizes the skin soon after birth and is the primary yeast species associated with skin and ear disease. Malassezia is a part of the normal cutaneous flora of healthy dogs and cats, with the principal carriage sites being the mucocutaneous areas, ears and interdigital regions. But under favourable conditions, they can grow and reproduce in

abnormal numbers and result in clinical disease. Predisposing factors for malassezia *spp.* overgrowth on feline skin are unknown (Hnilica and Patterson, 2017). The most common symptoms of malassezia dermatitis in cats are hair loss, chin acne, redness, and seborrhea (Tresamol *et al.*, 2012).

Case history and Observations

A one-year-old female Persian cat weighing about 4.1 kg was presented to Veterinary Clinical Complex, COVAS, Mannuthy with a history of hair loss, skin lesions in face, tail, forearm, hindlegs and dorsum of the body. On clinical examination areas of alopecia with erythema, desquamation and seborrhoea were observed (Fig.1&2). Skin scrapings collected from the lesions and subjected to direct microscopical examination with 10 percent potassium hydroxide revealed the absence of ectoparasites. Impression smear from the lesions stained with field stain revealed presence of numerous budding yeast cells (Fig. 3). Based on history, clinical findings and laboratory examination, the condition was tentatively diagnosed as malassezia dermatitis.



Fig.1: Alopecia and seborrheic dermatitis on the dorsum of the body



Fig.2: Seborrheic lesions in the forearm

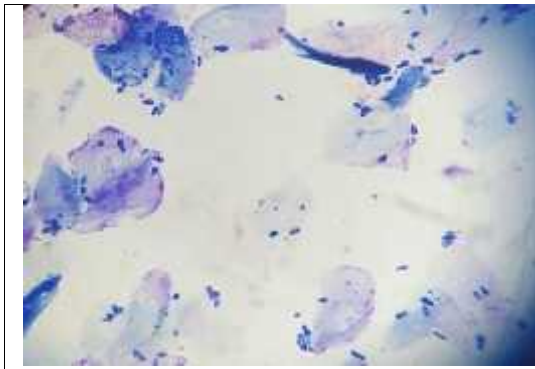


Fig. 3: Numerous budding yeast cells in the impression smear



Fig.4: Lesion after one week of treatment

Treatment and Discussion

Treatment was initiated with oral Fluconazole @ 5mg/kg BW OD PO, topical application of miconazole shampoo (Once in 5 days) and an omega 3 - omega 6 containing skin supplements for a period of two weeks. After one week the animal showed an evident response (Fig. 4) and it was advised to continue treatment for two more weeks.

Malassezia dermatitis might feature in cats that present with a phenotype of allergic skin disease, idiopathic facial dermatitis (Persian/Himalayan), feline acne and serious internal medical disorders such as feline paraneoplastic alopecia and thymoma associated exfoliative dermatitis as also reported by Bond *et al.*, 2010.

Malassezia pachydermatis is the commonly isolated species from the external ear canal of cats presented with clinical signs of otitis externa and dermatitis as also mentioned by Tresamol *et al.*, 2012. Malassezia yeast normally colonize the skin and external ear canals of animals in very low numbers, but in a diseased state, alterations to the skin contribute to increased susceptibility to infection. Alteration in surface lipids, increased moisture and humidity and/or disruption of the stratum corneum barrier

function encourages over growth of the yeast organism as also recorded by Comak and Ceylan, 2018.

The criteria required for the diagnosis of malassezia dermatitis have not been definitely established in pets. However, it may be proposed that such a diagnosis is appropriate when a cat with elevated numbers of malassezia yeasts with typical lesions on the skin shows good clinical response to antifungal therapy as also recommended by Crosaz *et al.*, 2013. Topical therapy is the initial recommended treatment in most cases. Systemic therapy can be advised when clinical signs are severe and lesions are extensive. Itraconazole can be considered as the systemic azole of first choice in cats for malassezia dermatitis as also suggested by Bond *et al.*, 2020.

Summary

In cats, generalized malassezia dermatitis remains extremely rare which is manifested as greasy, red, itchy skin with arancid odour. In this case study the infected cat was diagnosed as malassezia dermatitis based on anamnesis, clinical examination findings, and microscopical identification of numerous budding yeast cells. It was managed

successfully with parenteral and topical antifungal therapy.

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