

## Diagnosis and treatment of *Malassezia* dermatitis in a Persian cat

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**ABSTRACT:** The presence of *Malassezia* fungus on the skin, in both normal and excessive amounts, can activate the skin's immune system in cats. This paper reports a case of a seven-year-old Persian cat named Imo, who presented with eye pain and symptoms of dermatitis during a physical examination. A supporting examination, including a combo test kit and cytology, led to a diagnosis of *Malassezia* dermatitis. The therapy provided involved cleaning and compressing the wound with a saline solution containing NaCl, administering itraconazole and an oxyfresh water additive, injecting marbofloxacin subcutaneously, and applying vaseline topically. The patient showed noticeable improvement in wound healing within 24 days of hospitalization.

### Keywords:

*Malassezia* dermatitis, Persian cat, diagnosis, therapy

### ■ INTRODUCTION

The presence of *Malassezia* fungus on the skin, both in normal and excessive amounts, can activate the skin's immune system in cats. *Malassezia* antigens stimulate innate, antibody, and cellular immune responses, and trigger hypersensitivity reactions (Bond *et al.* 2010). In animals experiencing *Malassezia* overgrowth or those predisposed to allergic sensitization, the inflammatory response can lead to dermatitis and pruritus (itching), known as *Malassezia* dermatitis (Guillot *et al.* 2020). This overgrowth can be triggered by allergies, hormonal imbalances, increased environmental humidity and temperature, sebum quantity and quality, immune dysfunction, and genetic predisposition (Souza 2019). Clinical symptoms of *Malassezia* dermatitis can vary in dogs and cats and sometimes resemble other skin diseases. Symptoms include erythema, oily and lumpy fur with a blackish-brown color, and itching (pruritus). *Malassezia* dermatitis in cats can also occur alongside idiopathic facial dermatitis, especially in Persian and Himalayan cats (Guillot *et al.* 2020).

The diagnosis of *Malassezia* dermatitis is performed through cytological examination of cells from the skin or ear. Sampling methods include swabs, tape impressions, or dry scrapings, which are then viewed under a microscope. The fungus is identified by its distinctive "foot-print" appearance on cytological examination of skin lesions (Souza 2019). This study aims to determine the

diagnostic process for *Malassezia* dermatitis and its therapy on a seven-year-old Persian cat.

### ■ CASES

**Symptoms and Anamnesis:** A 7-year-old solid white Persian cat named Imo was brought to the Zoom Veterinary Team clinic on February 13, 2024, with complaints of eye pain. **Physical Examination:** The physical examination revealed a body temperature of 38.4°C and a body weight of 4.8 kg. **Supporting Examination:** A FPV/FCoV/GIA Ag Combo Test was used for examination. Additionally, cytology was performed for microscopic examination. **Diagnosis:** The cat was diagnosed with giardiasis and *Malassezia* dermatitis.

### ■ RESULT AND DISCUSSION

The examination results using the combo test kit showed positive GIA, negative FCoV, and negative FPV. Microscopic examination revealed the presence of *Malassezia* dermatitis (Figure 1). Treatment for *Malassezia* dermatitis in Imo, a Persian cat, began with initial therapy consisting of cleaning and compressing the affected areas with sterile gauze soaked in NaCl-saline, along with administering Rilexine and Amacin. The NaCl-saline solution was used to clean the skin affected by *Malassezia* dermatitis, helping to remove dirt, crust,

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and exudate (inflammatory fluid), and to relieve itching (Wedi 2016). This cleaning was performed twice a day before applying medication.

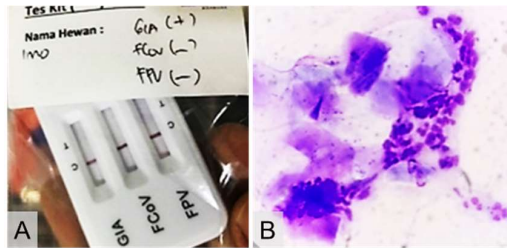


Figure 1. Supporting examination results show positive GIA accompanied by microscopic appearance of *Malassezia*.

Rilexine, a non-steroidal anti-inflammatory drug (NSAID), was prescribed to reduce itching and inflammation (Dall'Oglio *et al.* 2022). It works by inhibiting the cyclooxygenase (COX) enzyme involved in prostaglandin production, which helps reduce itching and inflammation. Additionally, Rilexine can expedite skin healing by increasing blood flow to the affected area and was administered orally twice a day.

Amacin ointment, containing Gentamicin sulfate and Neomycin sulfate, is a topical antibiotic used to treat bacterial infections (Jacobson 2002). In cases of *Malassezia* dermatitis, secondary bacterial infections can occur due to inflammation and skin barrier disruption, allowing bacteria to enter more easily. Amacin helps by killing the bacteria causing the infection. Treating these secondary infections is crucial to avoid worsening *Malassezia* dermatitis and to promote healing.

The initial treatment with combination of NaCl-saline, Amacin, and Rilexine for 10 days did not yield significant healing (Figure 2). Therefore, the therapy was adjusted to include itraconazole, an oxyfresh water additive, injected marbofloxacin as a substitute for Amacin, vaseline, and the discontinuation of Rilexine. Itraconazole, an azole antifungal, inhibits the synthesis of ergosterol, a crucial component of the fungal cell membrane (Rhim *et al.* 2021). It was administered orally once a day for 14 days to inhibit *Malassezia* fungus growth.

## ■ CONCLUSION

The diagnosis and treatment of *Malassezia* dermatitis in Imo, a seven-year-old Persian cat, were successfully executed. Initial therapies included NaCl-saline, Rilexine, and Amacin ointment. After limited improvement, the treatment was adjusted to itraconazole, oxyfresh water additive, marbofloxacin injections, and vaseline application. This resulted in significant healing within 24 days. The approach highlighted the importance of treating both fungal infections and secondary bacterial complications. Continuous observation is essential to prevent recurrence infection.

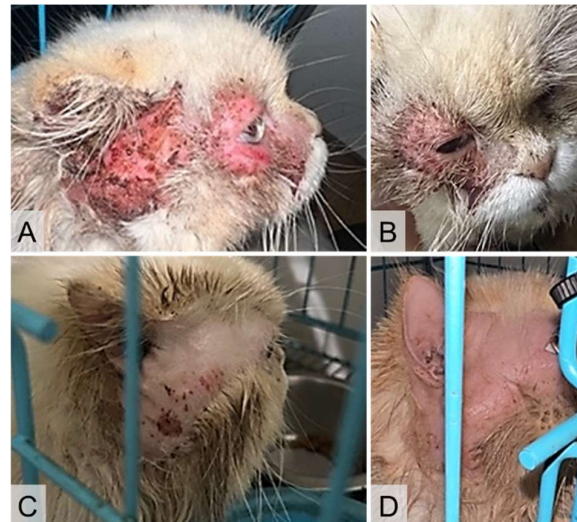


Figure 2. Progression of healing in *Malassezia* dermatitis treatment in cats. A, B. No healing observed after 10 days of treatment with NaCl-saline, Amacin, and Rilexine; C, D. Significant healing observed after 24 days of treatment with itraconazole, oxyfresh water additive, and injected marbofloxacin.

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