

## *Fungal Dermatitis or Superficial Mycosis*

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Mycosis is not common in either wild or house rabbits and is rarely encountered as epizootic. Rather, it generally occurs as a sporadic infection in one individual rabbit. It is believed that immunosuppressed rabbits are more susceptible to the disease.

The causing agents are two pathogenic fungi:

- *Trichophyton mentagrophytes* = ringworm  
May be carried asymptotically in the coat of the rabbit.
- *Microsporum canis*  
Occasionally rabbits are infected through contact with cats or dogs; this fungus can carry one or more zoonotic diseases (diseases that can be transmitted from animal to human).

Ringworm is the main cause of mycosis. It will infect not only the epidermis, but also the annex structures such as hair follicles and hair shafts. In some cases, cultures of infected tissue have revealed the presence of *Microsporum* sp.

### Clinical Signs

Typically, lesions start around the head and spread to the legs and feet, more specifically to the toenail beds. The wound is raised, circumscribed



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Severe case of fungal infection on skin, limbs and face



and erythematous. It shows dry crusts with little or no pruritus and patchy alopecia. The tissue under the crusts usually shows inflammation and the hair follicles show abscessation, as the secondary result of a bacterial invasion.

Histological sections show hyperkeratosis, folliculitis, acanthosis and the diffuse infiltration of leukocytes into the dermis layer.

### Diagnosis

1. Cultures on a fungal or dermatophyte media. It must, however, be kept in mind that the results obtained may not be reliable and must be completed with histological studies.
2. Identification of skin scrapings mounted in 10% KOH. This enables to identify the different arthrospores
3. Fluorescence (UV light) is of little help. One fungus (T. m.) does not fluorescence, the other fungus (M. c.) is strain dependent: some show fluorescence, others do not.
4. Gomori methenamine silver stain, Gridley fungus stain and periodic acid-Schiff (PAS) reaction staining are all methods that help demonstrate the presence of arthrospores and to identify them.

The diagnosis must differentiate from other causes of crusty alopecia commonly found on the head and ears (genetic hairlessness, trauma, depilatory hair loss, fur pulling).

### Treatment and Dosage

It may be useful to clip the hair around the lesion, if done so, the hair is best destructured by fire.

The best treatment for fungal dermatitis is oral administration of:

- Griseofulvin (Walton Pharmaceuticals Ltd., UK) (25-50 mg/kg PO q24h or divided q12h). (Wear gloves while administering this drug). The treatment should continue two weeks after the disappearance of the clinical signs.

Topical or systemic treatments are also possible:

- Clotrimazole cream or lotion,
- Enilconazole spray,
- Itraconazole (5-10 mg/PO, q 24 h)
- Terbinafine (8-20 mg/kg PO, q24h)



- Ketoconazole (10-15 mg/kg PO q 24h) (not to be used in breeding animals),
- Miconazole cream,

Most of the mentioned products are unlicensed for rabbits; literature references, however, assert those drugs are the treatments of choice for fungal dermatitis in rabbits.

The environment of the rabbit should be cleaned carefully: vacuum cleaning, boiling of towels and cleaning of surfaces with 1:10 bleach water.

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### Further Information

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