Ringworm in Ferrets

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What is ringworm?

Ringworm is a skin condition caused by a fungus that can infect many mammals including ferrets, although they are less commonly affected than dogs and cats. There are several different types of this fungus; the most common types to cause disease in ferrets are *Microsporum canis* and *Trichophyton mentagrophytes*. The medical terms for ringworm infections are "dermatophytosis" and "dermatomycosis."

How is the fungus transmitted?

The fungus is most commonly found either on an infected animal or in the living quarters of infected animals. Spores from infected animals can be shed into the environment and live for over 18 months. The fungus can be transmitted by direct contact with an infected animal, or contact with an item (e.g., grooming brush, bedding) that is contaminated with the spores. Cats are often the source of infection for ferrets because they can be asymptomatic carriers and harbor and shed the organism without showing signs of infection. The incidence of infection varies with geographical area and environment. Kits and young ferrets are more commonly affected than adults.

What are the signs?

Ferrets with ringworm usually have a small round lesion (papule) that is devoid of hair. The lesion may have a scaly center. The lesions can grow into rather large, roundish areas of hair loss, broken hairs, and inflamed skin. The skin may become thick, red, and crusty. The lesions may or may not be irritated and itchy. If the animal scratches, it may result in more trauma to the skin and a secondary bacterial infection.

How is ringworm diagnosed?

Ringworm can be diagnosed through several different methods. A popular but not completely accurate way to diagnose the disease is through the use of a specialized black light called a Wood's lamp. Several species of the ringworm fungus will fluoresce when exposed to a Wood's lamp. However, it is estimated that up to half of the most common species of *M. canis* do not fluoresce under a Wood's lamp, and *T. mentagrophytes* does not fluoresce, so this is not a good diagnostic tool in ferrets.

Another method for identifying ringworm is to pluck and examine hairs on the periphery of the lesion under the microscope using a preparation of KOH (potassium hydroxide) to make them more visible. Between 40% and 70% of the infections can be diagnosed this way.

The best and most accurate way to identify a ringworm infection is by collecting scales and crust from the skin and coat and performing a culture. There are special culture mediums designed specifically for identifying ringworm infections. Your local veterinarian can easily perform this routine culture.

How is ringworm treated?

In otherwise healthy ferrets, the ringworm infection will often resolve without treatment. The goal with these animals is to treat any underlying conditions, provide good nutrition, and prevent the spread humans and other animals.

In more severe cases, several different treatments are used. For isolated lesions, the area around the lesion should be thoroughly clipped down close to the skin. Care should be taken when clipping not to irritate the skin, as this may make the infection spread. Also realize that the clipped hair, clippers, and any grooming instruments that come into contact with an infected animal will harbor the spores and must be heat or chemically sterilized before being used on any other animal. The lesions can then be treated with keratolytic shampoos, povidone-iodine cleansing agents, lime-sulfur dips, and/or topical anti-fungal medications. It is recommended that all animals in the household be treated. Griseofulvin, an oral medication, may be used in ferrets who do not respond to the usual treatments. Griseofulvin should not be used in breeding or pregnant animals.

Because the ringworm fungus can survive for such long periods in the environment, it is critical that an effective cleaning plan should also be implemented. The spores are very resistant to most cleaners, however, bleach diluted to 1:10 with water, or a solution of chlorhexidine will kill most of the organisms. All grooming tools, bedding, and cages should be thoroughly cleaned and disinfected. Carpets should be steam cleaned and disinfected. Heating and cooling ducts and furnaces should be professionally vacuumed and filters replaced. Furniture and drapes should be vacuumed and the vacuum cleaner bags should be disposed of promptly. These cleaning measures will need to be continued during the duration of the treatment and for several weeks afterward.

Is ringworm transmissible to people?

Yes. Ringworm can be transmitted between ferrets and people. Persons with suppressed immune systems, such as those with HIV infections or AIDS, and those undergoing chemotherapy may be especially vulnerable. Persons should wear gloves when handling affected animals and wash hands well afterwards.

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