

## *Common Fur Mites or Cheyletiellosis*

*Esther van Praag, Ph.D.*

Rabbits can be infested with fur mites. Visual examination is not always sufficient to confirm the presence of mites. One can use the tape method, skin scraping (shallow if fur mites are suspected, deep if burrowing mites are suspected), or the vacuum aspiration method on a filter paper. Samples from scraping or aspiration should be spread on a microscope glass, dissolved in KOH, and examined under a microscope. The chance is great that one will discover at least one mite or a larva or eggs. Hair can also be sampled, dissolved in KOH, and examined under the microscope for the presence of eggs. If no mite is found in the first sample, one should check other places on the body. If the presence of burrowing mites is suspected, but not found after a deep skin scraping, it is best to do a biopsy on the area suspected of mite infestation.



Ron Davies

*Leporacarus (formerly Listrophorus) gibbus*



Fur mites (live on the surface of the skin) can fall off and contaminate the environment. While treating for mites, careful cleaning of the cage and environment is recommended.

If any mite problem is not solved, consider the presence of dogs and cats (both can be asymptomatic carriers) or of parasites that survived the treatment.

Fur Mites: *Cheyletiella parasitovorax* and *Leporacarus* (formerly *Listrophorus*) *gibbus*

Very common non-burrowing skin parasites, *Cheyletiella parasitovorax* and *Leporacarus gibbus* are encountered around the world and affect mainly rabbits but also cats and dogs. *Cheyletiella parasitovorax* has a zoonotic potential, causing a transient itching dermatosis in humans.

The *Cheyletiella parasitovorax* parasite lives in close association with the keratin layer of the skin but does not burrow itself into the skin. It is suspected that mites may be present asymptotically on some healthy rabbits.

The development from egg to adult mite takes place on one rabbit host. The female lay eggs and sticks them to the hair about 3 to 4 mm above the skin. The life cycle takes about 5 weeks.



VEIN (Veterinary Exotic Information Network) System, Copyright © Akira Yamanouchi

Left: *Cheyletiella parasitovorax*  
Right: Egg stuck to a hair





Ils Vanderstaey

Lop rabbit heavily infested with skin mites: characteristic V-shape on the dorsum



### Symptoms and clinical signs

Fur mites seem associated with spring when weather becomes milder, with a lack of vitamin C in the diet, or with the presence of an underlying disease, which weakens the immune system.

The presence of fur mites is not always easy to determine. When present,



*Cheyletiella parasitovorax* is most likely to be found on the dorsum and neck of the rabbit, where it causes dandruff, seborrheic lesions (lesions from abnormally increased secretion of fatty matter), and a pruritic (itching) condition.

*Leporacarus gibbus* is found mainly on the dorsum and abdomen. Fur mites can cause a

hypersensitivity reaction.

### Treatment

Fur mites are eliminated by ivermectin, PO or SC, 3 times at intervals of 10-14 days. Ivermectin can also be used topically (directly on the skin). Dips (Aludex® - Hoechst; Seleen® - Sanofi; LymDyp® - DVM) can be used to treat the seborrhea (excessive secretion of fat by the skin) and remove the keratin layer on which the mites feed; they will not kill the parasite.

Although fipronil (Frontline® - Merial) is effective in eliminating *Cheyletiella* spp., the manufacturer *forbids* the use of Frontline® on rabbits. Serious adverse effects (depression, anorexia, seizures, death) have been observed in rabbits, especially young or small rabbits.

Imidacloprid (Advantage® - Bayer) is ineffective against *Cheyletiella* spp. mites.



Treatment of the environment is important (boric acid such as Fleabusters®; Vet-Kem Acclaim Plus® - Sanofi; Staykil® - Novartis; Indorex® - Virbac; acaricide spray). When treating a carpet, vacuum first in order to further penetration of the spray or powder. Shampooing and steam cleaning are not ideal; their residual humidity can increase the mite problem. During treatment of the environment, rabbits should be kept in another part of the home to avoid the danger of contact with the products.

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### Further Information

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