Tularemia (Rabbit Fever) in Cats

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Tularemia is a relatively rare bacterial disease of birds, animals, and people and is found throughout the Northern Hemisphere. It is also called 'rabbit fever.'

What causes tularemia?

Tularemia is caused by *Francisella tularensis*. There are two strains of this bacteria. Both Type A and Type B can cause disease in cats. Type A generally causes a more severe disease in people. Type B has a more complex life cycle than Type A.

How is *F. tularensis* transmitted?

In North America, *F. tularensis* is spread from animal to animal by four different ticks: *Dermacentor andersoni*, *D. variabilis*, *D. occidentalis*, and *Amblyomma americanum.* Ticks become infected through feeding on infected animals or birds and can transmit the bacteria to another animal any time during the tick's life cycle (2 years). Fleas, like ticks, can transmit tularemia because of their feeding habits. Cats can also become infected by eating infected rabbits or rodents.

What are the symptoms of tularemia in pets?

Dogs appear to be fairly resistant to the disease and the only symptoms may be loss of appetite, listlessness, and a low fever. Cats are more susceptible and affected animals develop abscesses at the site of the tick bite, high fevers, and enlarged lymph nodes. After about one week, the animals have discharges from their nose and eyes and develop a rash. Cats may develop internal abscesses in their spleens or livers. Kittens and puppies are usually more severely affected than older animals.

How is tularemia diagnosed?

A blood test which tests for the animal's antibodies (proteins produced to fight off the infection) to *F. tularensis* is available. The antibodies may not be detected in the early phase of the disease since it takes some time for the body to make them. As the disease progresses, the antibody level will rise.

Being able to grow *F. tularensis* in the laboratory from discharges or tissues from the affected animal is the sure way to diagnose the disease.

How is tularemia treated?

The best antibiotic to use to treat tularemia in cats has not been determined. In people, gentamicin and streptomycin are used. Newer antibiotics such as enrofloxacin (Baytril) and ciprofloxacin may be effective.

How is tularemia prevented?

Tick control and flea control are the main ways to prevent tularemia. Products which repel and kill ticks and fleas such as those containing pyrethrin, etofenprox, or similar ingredients (Bio Spot Spon-On for Cats)) are excellent choices. Frontline kills ticks, but does not repel them. Keeping cats indoors will likely prevent infection.

Restricting cats from killing, eating, or coming into contact with dead rodents and rabbits is also important.

What are the important points to remember about tularemia in people?

People usually develop a lesion at the site of the tick bite which is called an 'indolent ulcer.' Enlarged lymph nodes are a common sign. If the bacteria was ingested (by eating undercooked rabbit, or off of unwashed hands after handling an infected rabbit), intestinal pain, vomiting, and diarrhea can occur. The time from the exposure to the bacteria, either through ingestion or a tick bite, until symptoms occur is generally 3 days. It is important to note that *F. tularensis* can live in frozen rabbit meat for over 3 years.

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