



Feline Leukemia Virus in Cats

Feline leukemia virus (FeLV) is one of the most common infectious diseases in cats, affecting between 2 and 3% of all cats in the United States. Infection rates are significantly higher (up to 30%) in cats that are ill or otherwise at high risk (see below). Fortunately, the prevalence of FeLV in cats has decreased significantly in the past 25 years since the development of an effective vaccine and accurate testing procedures.

Cats persistently infected with FeLV serve as sources of infection for other cats. The virus is shed in saliva, nasal secretions, urine, feces, and milk of infected cats. Cat-to-cat transfer of the virus may occur from a bite wound, during mutual grooming, and (rarely) through the shared use of litter boxes and feeding dishes. Transmission can also take place from an infected mother cat to her kittens, either before they are born or while they are nursing. FeLV does not survive long outside a cat's body – probably less than a few hours under normal household conditions.

Cats at greatest risk of FeLV infection are those that may be exposed to infected cats, either via prolonged close contact or through bite wounds. Such cats include cats living with infected cats or with cats of unknown infection status, cats allowed outdoors unsupervised where they may be bitten by an infected cat, and kittens born to infected mothers.

Kittens are much more susceptible to FeLV infection than are adult cats, and therefore are at the greatest risk of infection if exposed. However, even healthy adult cats can become infected if sufficiently exposed.

Clinical Signs

FeLV adversely affects a cat's body in many ways. It is the most common cause of cancer in cats, may cause various blood disorders, and may lead to a state of immune deficiency that hinders a cat's ability to protect itself against other infections. Because of this, common bacteria, viruses, protozoa, and fungi that usually do not affect healthy cats can cause severe illness in FeLV-infected cats. These secondary infections are responsible for many of the diseases associated with FeLV.

During the early stages of infection, it is common for cats to exhibit no signs of disease at all. Over time, however, (weeks, months, or even years) an infected cat's health may progressively deteriorate or he/she may experience repeating cycles of illness and relative health. Signs can include:

- Loss of appetite
- Progressive weight loss
- Poor coat condition

- Enlarged lymph nodes
- Persistent fever
- Pale gums and other mucus membranes
- Inflammation of the gums (gingivitis) and mouth (stomatitis)
- Infections of the skin, urinary bladder, and upper respiratory tract
- Persistent diarrhea
- Seizures, behavior changes, and other neurological disorders
- A variety of eye conditions
- Abortion of kittens or other reproductive failures

Diagnosis

Two types of blood tests are commonly used to diagnose FeLV, both of which detect a protein component of the virus called FeLV P27. One of these tests, called an enzyme-linked immunosorbent assay (ELISA), is usually performed first as a screening tool, and can be run in a veterinarian's office. ELISA-type tests detect the presence of free FeLV particles that are commonly found in the bloodstream during both the early and late stages of infection.

Treatment and Prevention

Although there are some therapies that have been shown to decrease the amount of FeLV in the bloodstream of affected cats, these therapies may have significant side effects and may not be effective in all cases. Unfortunately, there is currently no definitive cure for FeLV. Veterinarians treating and managing FeLV-positive cats showing signs of disease usually treat specific problems (like prescribing antibiotics for bacterial infections, or performing blood transfusions for severe anemia).

The only sure way to protect cats from FeLV is to prevent their exposure to FeLV-infected cats. Keeping cats indoors, away from potentially infected cats is recommended. If outdoor access is allowed, provide supervision or place cats in a secure enclosure to prevent wandering and fighting. All cats should be tested for FeLV prior to introducing them into a home, and infection-free cats should be housed separately from infected cats. Food and water bowls and litter boxes should not be shared between FeLV-infected cats and non-infected cats. Unfortunately, many FeLV-infected cats are not diagnosed until after they have lived with other cats. In such cases, all other cats in the household should be tested for FeLV. Ideally, infected and non-infected cats should then be separated to eliminate the potential for FeLV transmission.

Prognosis

Although a diagnosis of FeLV can be emotionally devastating, it is important to realize that cats with FeLV can live normal lives for prolonged periods of time. The median survival time for cats after FeLV is diagnosed is 2.5 years. Once a cat has been diagnosed with FeLV, careful monitoring of weight, appetite, activity level, elimination habits, appearance of the mouth and eyes, and behavior is an important part of managing this disease. Any signs of abnormality in any of these areas should prompt immediate consultation with a veterinarian.

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