FELINE IMMUNODEFICIENCY VIRUS

The Feline Immunodeficiency Virus (FIV), sometimes called the Feline AIDS Virus, is an important disease agent of the cat. It is likened to the AIDS virus which affects humans because of the similarities in the two diseases which result. Both viruses insert their genetic code into the genetic code of the host’s cells. Fortunately, most viruses are species specific. This is the case with the human AIDS virus and with FIV. The AIDS virus affects only humans, and the FIV affects only cats.

What cats are likely to be infected with the FIV?
The FIV is transmitted primarily through bite wounds that occur in cat fights. Other interactions of cats, such as sharing common food and water bowls or grooming each other, have not been shown to be significant in transmission.

What are the clinical signs?
An FIV infected cat will generally go through a prolonged period of viral dormancy before it becomes ill. This incubation period may last as long as six years. Thus, we generally do not diagnose FIV in sick cats who are relatively young.

When illness occurs, we can see a variety of severe, chronic illnesses. The most common illness is a severe infection affecting the gums around the teeth. Abscesses from fight wounds which would normally heal within a week or two may remain active for several months. Respiratory infections may linger for weeks. The cat may lose weight and go through periods of not eating well; the hair coat may become unkempt. The cat may have episodes of treatment-resistant diarrhea. Ultimately, widespread organ failure occurs, and the cat dies.

How is the diagnosis made?
Evidence of exposure to the FIV can be detected by a simple blood test. A positive test means the cat has been infected with the virus and will likely remain infected for the remainder of its life. A negative may mean that the cat has not been exposed; however, false negatives occur in a few situations.

According to the American Association of Feline Practitioners (AAFP), all sick cats should be checked for FIV to evaluate their exposure status and routine testing of all cats at risk is warranted. If you would like a copy of the AAFP FIV testing recommendations, please be sure to let us know.

Adult Cats

1. From the time of initial virus inoculation into the cat, it may take up to two years for the test to turn positive. Therefore, for up to two years, the test is likely to be negative even though the virus is present in the cat.

2. When some cats becomes terminally ill with FIV, the test may again turn negative. This occurs because antibodies (immune proteins) produced against the virus become attached and bound to the large amount of virus present. Since the test detects antibodies which are free in circulation, the test may be falsely negative. This is not the normal occurrence, but it does happen to some cats.
Kittens

The vast majority of kittens under 4 months of age who test positive have not been exposed to the virus. Instead, the test is detecting the immunity (antibodies) that were passed from the mother to the kitten that were passed through the mother’s milk. These antibodies may persist until the kitten is about 5 1/2 months old. However, despite this, we recommend that all kittens tested when we test for Feline Leukemia Virus. If the kitten tests negative, there is no cause for worry. Kittens that initially test positive should be retested when six months of age. Most likely, the kitten does not have FIV, but to be on the safe side, we recommend separating such FIV positive testing kittens from other cats until it can be proven that the kitten does not have the virus (hopefully, when retested at six months of age). If at the six month test, the kitten’s FIV test remains positive, the possibility of true infection is much greater.

If a kitten is bitten by an FIV-infected cat, it can develop a true infection. However, the test will usually not turn positive for many months. If a mother cat is infected with the FIV at the time she is pregnant or nursing, she can pass large quantities of the virus to her kittens. This means of transmission may result in a positive test result in just a few weeks.

Treatment & Prevention

Is treatment possible?
No treatments are available to rid the cat of the FIV. However, the disease state can sometimes be treated with antibiotics or with drugs to stimulate the immune system restoring the cat to relatively good health. However, the virus will still be in the cat and may become active at a later date. Therefore, the long-term prognosis is unfavorable.

If you have a cat which tests FIV-positive but is not ill, it is not necessary to immediately euthanize your cat. As long as it does not fight with your other cats or those of your neighbors, transmission is not likely to occur. However, if it is prone to fight or if another cat often instigates fights with it, transmission is likely. In fairness to your neighbors, it is generally recommended to restrict an FIV-positive cat to your house. Owners of infected cats must be responsible so that the likelihood of transmission to someone else's cat is minimized.

What is the prognosis?
The long-term prognosis is poor, however infected cats may experience prolonged periods of reasonably good health.

How can I prevent my other cats from getting infected with the FIV?
Neutering of male cats and keeping cats indoors are the only available preventive measures which can be recommended. A vaccine is currently available to prevent infection but the vaccine’s effectiveness has yet to be adequately proven to our hospital team.

Can this virus be transmitted to me or my family?
The feline immunodeficiency virus is cat-specific; it does not infect humans.
Here is a copy of the AAFP/AFM recommendations for Feline Immunodeficiency Virus provided to Westonka Animal Hospital upon request. It is our hope to try to educate our clients as the this virus so that with your cooperation, we can reduce the spread of this virus. Please feel free to share this information with your friends and neighbors.

Please remember, that Feline Immunodeficiency Virus (FIV) is NOT the same virus as Feline Leukemia Virus. FIV infection rates of normal appearing cats in the United States, range from 1% to 3%. FIV infection rates of sick or ill cats range from 11% to 14%. Unfortunately, no immunizations exist to control this virus.

Because of the technical style of this report, for your convenience, we have put in **bold, green, italic print**, those points which are most relevant to our clients.

Sincerely,
Craig L. Piepkorn, DVM
Westonka Animal Hospital Staff Veterinarian
and is himself owned by 2 cats; "Celeste" & "Pippen"

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American Association of Feline Practitioners

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Academy of Feline Medicine

AAFP/AFM RECOMMENDATIONS FOR FELINE IMMUNODEFICIENCY VIRUS TESTING

1. *The Feline Immunodeficiency Virus (FIV) antibody status of all cats over 6 months of age should be known.*
   Epidemiologic studies continue to indicate the global nature of this infection in the cat population.\(^1\,^2\)
   Prevalence may be higher than previously suspected.\(^3\)

2. *Testing and identifying positive cats is the only means by which FIV disease can be controlled. The best means of preventing disease is by preventing exposure to FIV-infected cats.*

3. *Testing should occur in the following:*
   a. cats or new kittens over six months of age before introduction into a household to prevent exposing existing cats
   b. cats or newly adopted kittens over six months of age, even if they are the only cat in the household
   c. cats in existing households where the FIV status is not known because carriers can remain asymptomatic for years and expose other cats
   d. cats in which a recent exposure (known or potential) occurs -regardless of previous negative test results - because the FIV status can change
   e. ill cats because FIV has been associated with a great variety of illnesses in cats\(^2\,^4\)

4. Available FIV diagnostic tests (ELISA and Western Blot) detect antibodies against the virus (in contrast to the FeLV test which detects antigen). Tests are only diagnostic for FIV infections that have stimulated detectable antibody - they are not diagnostic for clinical disease. There is high correlation between the presence of antibodies to FIV and persistent infection. The FIV antibody positive cats confirmed by Western Blot should be assumed to be persistently infected and a persistent source of virus.

5. The ELISA test is recognized as the preferred screening test for FIV. The Western Blot is most appropriate as a confirmatory test.
6. All positive results for FIV should be confirmed by Western Blot.

7. No test is 100% accurate at all times and under all conditions; therefore, a critical decision about the care of a patient - whether healthy or ill - should never be based solely on a single test result.  

8. Passively acquired maternal antibody in young kittens interferes with the interpretation of diagnostic antibody tests for FIV.  

9. Adult cats and kittens over 6 months of age which test negative - but with a known or suspected exposure to FIV - should be retested. The testing is repeated because a negative result may be obtained when testing is done early in the viral infection before seroconversion. The determining retest should be at least 120 days post-exposure. Clients should be counseled on the potential risk of FIV exposure when adding a cat with one negative test result to an FIV-negative household.

10. Periodic (e.g., annual) testing of cats "at risk" of infection is justifiable. Cats "at risk" are defined as those with known or potential exposure to FIV. These include: outdoor cats; fighting cats; strays; cats with bite wounds; escapees; recently mated females if the FIV status of the male is unknown; cats in open multiple-cat households; cats in closed multiple-cat households with any other cats of unknown FIV status; cats in households having a known FIV positive cat.

11. FIV infection generally carries a more favorable prognosis than does FeLV (Feline Leukemia Virus) infection. Therefore, a continued positive FIV antibody status has uncertain relevance to the prognosis and therapeutic management, but does indicate potential for virus transmission.

12. FIV-positive healthy cats may live for months to years. Effective FIV case management involves measures aimed at preserving the health of the infected cat; preventing the spread of FIV infection; and early recognition and aggressive treatment of FIV-associated disease. The quality of life and clinical status of FIV-positive cats can be enhanced through the concerted efforts of the pet owner and the attending veterinarian.

References
5. Barr, Margaret C., Feline Immunodeficiency Virus Tests and their Interpretation, in Feline Health Topics for veterinarians, Cornell Feline Health Center, Volume 8, Number 3, 1993.