PROTOCOLS OF TREATMENT AND NEW PROPOSALS OF VACCINATION AGAINST FELINE LEUKEMIA

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OBJECTIVES

- ❑ Understand and analyze the main therapeutic protocols and action against the feline leukemia virus (FeLV).
- ❑ Determinate the measures of prevention and control programs of infection.
- ❑ Discover the new possibilities of vaccination in research and study.
- ❑ Understanding the importance of infection by FeLV in feline species.

INTRODUCTION

The infection caused by feline leukemia virus is considered one of the more impact it has on the health of domestic cats.

Due to the introduction of routine diagnostic measures and vaccination, the currently prevalence data of the virus shows a decrease in the rate of infection.

The result of infection by FeLV is different on each cat. Basically depends on the immunological status and age of the animal, but also the strain pathogenicity, infecting virus subtype and the concentration of virus to which the animal is exposed.

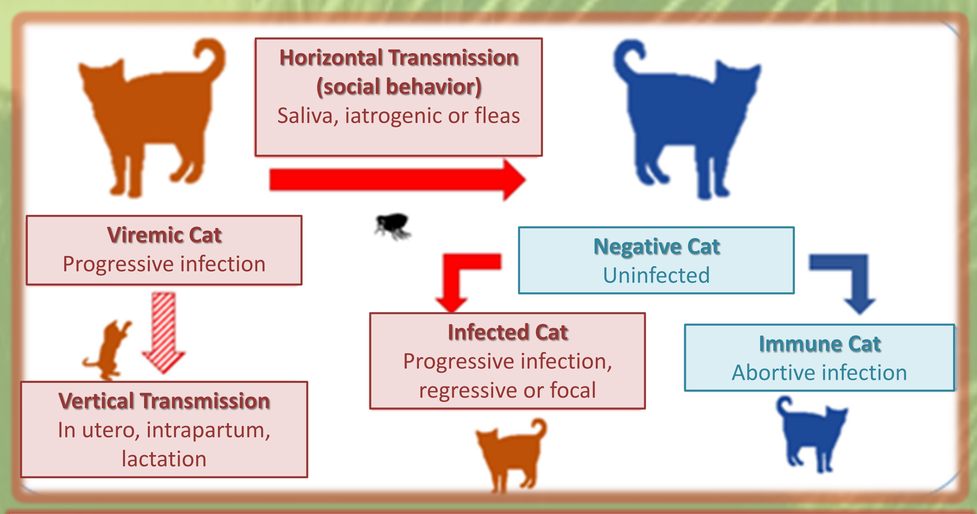

Diagram representing the routes of transmission of FeLV. The red arrows indicate the horizontal transmission of the virus. The red grated arrow indicates vertical transmission from the mother to her offspring. The blue arrow indicates the end of transmission of the virus infection because abortive infection.

TREATMENT

FeLV positive cats with clinical disease:

- Avoid contact with uninfected cats.
- Apply symptomatic treatment and support according to the clinical situation.
- Manage chemotherapy in cases of lymphoma.
- Short life expectancy.

FeLV positive cats clinically healthy:

- Avoid contact with uninfected cats.
- Reviews every 6 months: complete physical examination, blood analysis, biochemical profile, urianalysis and analysis of feces.
- Life expectancy longer than animals with clinical disease.

Most used drugs

ANTIVIRAL DRUG

Zidovudine (AZT): nucleoside analog (thymidine) which is incorporated into the DNA during reverse transcription of the viral RNA genome. It produces the disruption of DNA synthesis.

IMMUNOMODULATORS

Felin IFN-ω: it increases the survival of infected cats, but it does not produce healing.
Human IFN-α: it decreases the expression of viral proteins and imitates the natural processes of the body's defense.

PREVENTION

Type of Housing	Recommendations
Homes with multiple cats 	Annual review to detect the FeLV positive. If possible, avoid isolation of positive infection of uninfected cats. Vaccination of all cats from 8 weeks of age.
House with a single cat 	Annual review to detect whether it is positive to FeLV. Avoid contact the infected cat with outside. Basic vaccination protocol (feline Herpesvirus, feline Calicivirus and feline Panleucopenia).
Animal shelters 	Review twice a year to detect and sacrifice animals FeLV positive. Vaccination of all cats from 8 weeks of age.
Breeders 	Review twice a year to detect and sacrifice animals FeLV positive. Vaccination of all cats from 8 weeks of age.

Management and vaccination recommendations according to the type of animal

CONCLUSIONS

There is no proven treatment to remove viral infection, so the treatment of clinically sick animals is mainly based on simptomatic management.
Much variability efficacy of vaccines available commercially.
Vaccinate cats with a high risk of exposure to FeLV.
Most recommended vaccines available:

RECOMBINANT SUBUNIT VACCINE

CANARY POX RECOMBINANT VACCINE

INACTIVATED WHOLE VIRUS VACCINE