

STUDY SHOWS IMPROVED ACCURACY FOR FELINE LEUKEMIA VIRUS SALIVA TESTS

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EVALUATION OF A SALIVA TEST KIT FOR FELINE LEUKEMIA VIRUS ANTIGEN. S.D. Babyak, D.S. Dimski, J.J. England, M.G. Groves, J. Taboada. School of Veterinary Medicine, Louisiana State University, Baton Rouge, LA.

The detection of feline leukemia virus (FeLV) antigen in saliva, as opposed to whole blood, has certain advantages. The collection of saliva is less stressful than venipuncture, can be performed by one person, and may be accomplished easily on debilitated cats as well as healthy ones. This ease of use can be helpful when testing multi-cat households or in other situations where drawing large numbers of blood samples would be time consuming.

There have been several studies looking at saliva as a source of FeLV antigen using enzyme-linked immunosorbent assay (ELISA)-based test kits. These studies have generally found low specificity when compared with indirect immunofluorescent antibody (IFA) and plasma ELISA tests. Since those initial trials, ELISA kits suitable for saliva use have undergone modifications to improve their accuracy.

We evaluated one such product (ASSURE®/FeLV, Synbiotics Corp., San Diego, CA) in 150 cats. Ninety-one of the cats were patients from the veterinary teaching hospital (sick or healthy), and the remainder were from the local humane society. Blood and saliva samples from all cats were tested using the saliva ELISA, plasma ELISA (ViraCHEK®/FeLV, Synbiotics Corp., San Diego, CA), and IFA tests. The proportion of cats that tested positive were 10 %, 7 % and 8 % for each test, respectively. Using the IFA tests as the gold standard, the saliva tests had a sensitivity of 92 % and specificity of 97 %, while the plasma ELISA has a sensitivity of 92 % and specificity of 100 %.

The prevalence of FeLV infection in the free-roaming cat population has been reported to be approximately 2 %. Given this level of infection, the negative predictive value of the saliva ELISA test was virtually 100 % whereas the positive predictive value was 39 %. Therefore the saliva test may be considered by practitioners as a convenient means to noninvasively assess cats for the FeLV antigen. The test is excellent at ruling out infection; however, as with other ELISA-based test kits, positive results warrant further testing to confirm infection, especially in a healthy animal.