

Evaluation of correlation between the BioNote Vcheck and a commercial ELISA for feline fPL

Key words: Bionote Vcheck, Chronic pancreatitis, fPL, feline pancreas-specific lipase, correlation

Introduction

Pancreatitis is important disease in cats. Chronic pancreatitis is recognized as the most common form of feline pancreatitis.¹ The diagnosis of chronic pancreatitis is much more challenging than in acute pancreatitis because changes tend to be less marked. The feline pancreas-specific lipase (fPL) is the most sensitive and specific serum marker for feline pancreatitis currently available.²

The BioNote Vcheck fPL is an in vitro fluorescent immunoassay test kit for the quantitative measurement of fPL concentration in feline serum. Since the kit provides quantitative measurement of fPL levels, BioNote Vcheck fPL can be tested to diagnose pancreatitis.

Purpose

This is to evaluate correlation between Vcheck and IDEXX SPEC fPL that provides the same diagnostic benefits as the original feline pancreas-specific lipase immunoreactivity (fPLI), in terms of measuring concentrations of feline serum fPL.

Materials and Methods

The BioNote Vcheck fPL was carried out in accordance with the protocol provided by BioNote. The sensitivity and specificity of Vcheck fPL was evaluated using the test results from BioNote laboratory.

Fifty feline sera obtained from multiple animal hospitals in the Republic Korea were tested.

Results

The test results for the 50 experimental feline sera were described in figure 1 and table 1. Samples had various fPL concentrations. 39 samples were above the normal range for fPL.

We used the IDEXX SPEC fPL ELISA results for these sera as a gold standard test. The diagnostic sensitivity for the BioNote Vcheck fPL was 94.8% and the diagnostic specificity was 100 %.

Conclusion

There were strong agreement between the two assays (IDEXX SPEC ELISA and the BioNote Vcheck) for fPL, which was 94%.

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2. Forman MA, Marks SL, De Cock HE, Hergesell EJ, Wisner ER, Baker TW, Kass PH, Steiner JM, Williams DA. Evaluation of serum feline pancreatic lipase immunoreactivity and helical computed tomography versus conventional testing for the diagnosis of feline pancreatitis. *Journal of veterinary internal medicine*. 2004 Nov;18(6):807-15.

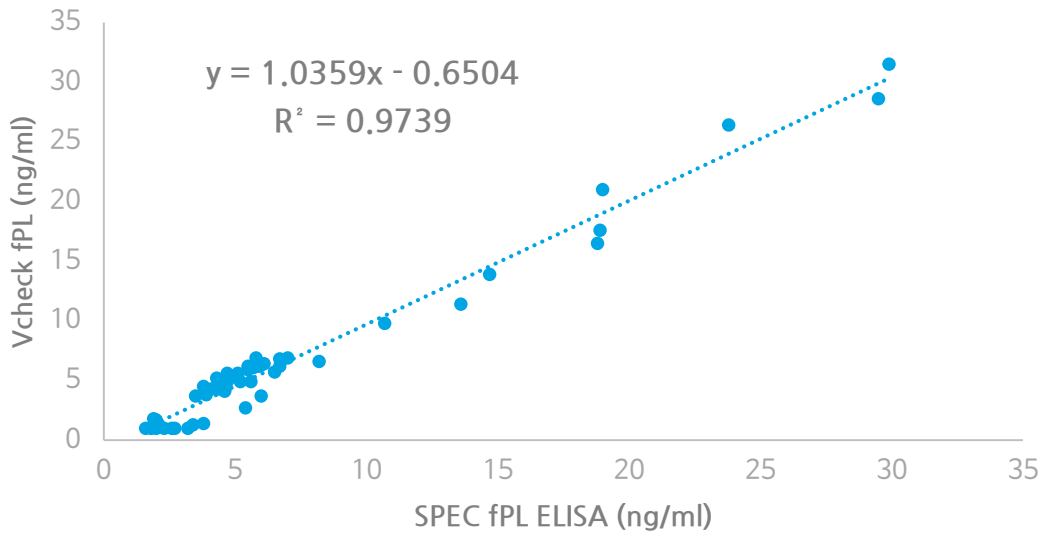


Figure 1. Correlation between Vcheck fPL and SPEC fPL ELISA (n=50)

		Vcheck fPL	Spec fPL ELISA
< 3.5 ng/ml	Normal	13	11
3.5~5.4 ng/ml	Elevated	14	16
> 5.4 ng/ml	Consistent with pancreatitis	23	23

Table 1. Correlation between normals and abnormal (n=50)