

Diagnostic Use of Spec fPL for Pancreatitis in Cats

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In the literature

Lee C, Kathrani A, Maddison J. Retrospective study of the diagnostic utility of Spec fPL in the assessment of 274 sick cats. *J Vet Intern Med.* 2020;34(4):1406-1412.

FROM THE PAGE ...

In this study, medical records of pet cats presented over a 4-year period, and in which Spec fPL was measured, were reviewed. The study represents the largest clinical evaluation of serum Spec fPL concentrations to date for diagnosis of pancreatitis in cats, and its retrospective nature allowed for inclusion of a significantly larger sample of cats ($n = 274$) than in previous studies.¹⁻⁴ Sick cats were included, regardless of whether pancreatitis was a differential diagnosis, which may have allowed for a slightly wider population than previously reported; however, it is likely that most clinicians have a suspicion for pancreatitis when serum Spec fPL concentrations are measured.

Each cat was assigned to 1 of 4 categories—definite, probable, possible, or unlikely pancreatitis—based on clinical signs, ultrasound changes, and cytology and/or histopathology. Definite pancreatitis was only assigned to cats with cytologic and/or histopathologic evidence of pancreatitis. Probable, possible, and unlikely pancreatitis were based on clinical findings, minimum

database, and abdominal ultrasound findings. It is unclear whether categorization was determined by a single author or by a panel vote of all 3 authors. Authors in a previous study using similar categorization reported significant disagreement in classification of cases.⁵

Only 9 cats met the criteria for definite pancreatitis. Notably, 3 of these 9 cats had a Spec fPL concentration within the reference interval, and 1 cat had a Spec fPL in the equivocal range (3.5-5.3 $\mu\text{g/L}$). Because this was a retrospective study, an obvious cause of these results could not be determined.

Similar to other studies, a low false-positive rate (10%) for serum Spec fPL concentration was confirmed. This rate might be lower than reported, as some cats with pancreatitis may not have had evidence of disease on ultrasonography. It was also confirmed that not all cats with pancreatitis have increased serum Spec fPL concentration; this is likely due to severity or chronicity of disease. However, it is possible the number of true positives was underestimated based on false-negative diagnoses on abdominal ultrasound, as has been previously reported.^{1,6}

Other biochemical markers were also evaluated, and no significant difference in serum albumin, total calcium, or serum ALT or ALP activities between the combined definite and probable pancreatitis groups and in the possible and unlikely pancreatitis groups was found. Although a significant difference among groups was found for the serum bilirubin concentration, this difference was not considered clinically relevant.

... TO YOUR PATIENTS

Key pearls to put into practice:

- 1** Careful integration of all available clinical information, including patient history, physical examination, minimum database, ultrasound findings, and serum Spec fPL concentrations, are crucial for diagnosis of pancreatitis and ruling out of other differential diagnoses or comorbidities in cats.
- 2** In this study, there was a low false-positive rate when using serum Spec fPL concentration for diagnosis of feline pancreatitis, and serum Spec fPL concentration $>5.3 \mu\text{g/L}$ was uncommon in cats without pancreatitis.
- 3** Not every cat with pancreatitis has an increased serum Spec fPL concentration; thus, pancreatitis should not be excluded solely based on the normal serum Spec fPL concentration in a sick cat.

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