

LETTER TO THE EDITOR

Results of histopathology, immunohistochemistry, and molecular clonality testing of small intestinal biopsy specimens from clinically healthy client-owned cats

Dear Editor,

I appreciate the thorough approach that the authors took in performing this research and for this well-written paper that demonstrates the importance of vomiting in cats.

Chronic small bowel disease (CSBD) is 1 of the most common diseases I diagnose and treat. Over the last 10 years, my associates and I have biopsied, via laparotomy, over 700 cats with a history of chronic vomiting (CV; 2× per month or more), chronic diarrhea (CD; >2 months duration), weight loss (WL), or some combination of these. Our criteria for recommending surgical biopsies are the presence of 1 or more of the correct clinical signs (CV, CD, and WL) and ultrasound-determined thickening of the small bowel based on 8-10 measurements.^{1,2} Our experience has taught us that cats with CV are not considered “sick” by most owners. I have learned from lecturing at veterinary conferences that a majority of veterinarians also accept CV as normal or “just a cat thing.” Chronic vomiting is accepted as normal based on 1 of 4 excuses: (1) the cat eats too fast, (2) the cat has a sensitive stomach, (3) it is only hairballs which do not count (but they do), or (4) it is just a characteristic of this particular cat.^{1,2} However, these excuses do not negate the fact that CV is not normal.

Attempts at diagnosing CSBD have included ultrasonographic-determined wall measurements. Three published studies looked at ultrasound findings in “normal cats.”³⁻⁵ Normal was defined as wall thickness up to 3.6 and 3.8 mm. However, after comparing measurements with histopathology of full-thickness biopsies, I know that normal is only up to 2.7 mm, and values of 3.6 and 3.8 are abnormal 100% of the time.¹ My explanation for this discrepancy is that these studies included many cats with CV that were incorrectly classified as normal cats and because biopsies were not taken of the small bowel to verify that the cats were truly normal. I also know that there is a 96% chance that cats with the correct clinical signs and thickened small bowel walls have either chronic enteritis (usually inflammatory bowel diseases) or lymphoma, with an even distribution between them.^{1,2}

The inclusion criteria for the Marsilio paper included cats that vomited up to twice per month. After 700+ cats that had full-thickness biopsies in all 3 sections of the small bowel with histopathologic examination, I can assure you that cats that chronically vomit twice per month are almost certain to have CSBD. To better exclude abnormal

cats, the authors should have included ultrasound-determined small bowel wall thickness as part of the inclusion criteria. In our hands, ultrasound has a 96% specificity for CSBD,^{1,2} and we are not boarded radiologists or internists. By not doing a simple 10-minute examination and by including vomiting cats, this paper is subject to fallacious conclusions for the same reason as the studies on normal wall thickness.

My final concern is the method used for taking biopsies. The small bowel of the cat is about 4 feet long. Endoscopic access is limited to about 1 inch of the duodenum and to about 1 inch of ileum or to about 4% of the organ (or 2% if only duodenum is biopsied). We routinely take at least 3 full-thickness samples that include duodenum, jejunum, and ileum; those sites are selected based on gross examination of every inch of the small bowel, that is, “running the bowel.” In addition, we also do a wedge biopsy of the liver and a punch biopsy of the pancreas, broadening our understanding of small bowel-related disease. This approach has allowed us to find many cats with jejunal only or jejunal-ileal disease in cats that have either normal duodenal histopathology or in cats with lymphoma with concurrent duodenal enteritis, thus documenting the segmental nature of CSBD. Limiting oneself to biopsies of 1-2 inches of the small bowel is a poor way to understand the complete pathology found in a cat with small bowel signs. It is even less effective in eliminating pathology, so the cat can correctly be declared normal.

In summary, I wish to make 3 points: (1) CV is so common in cats that it is taken either very casually or as “just a cat thing,” that is, normal. When asked if 1 of these cats is a “normal cat,” most owners will respond in the affirmative, sometimes allowing them to be included in studies of normal cats. (2) The studies on normal wall thicknesses had to have included many cats with CSBD in order to get the measurements that they reported as normal, thus, their conclusions are invalid, as we have shown.^{1,2} (3) The Marsilio study has likely made the same mistake by including cats with CSBD. In addition, it represents tunnel vision on what is happening in the small bowel of cats with small bowel signs. Thus, this study’s “normal” cohort was likely contaminated by including cats with CSBD, which would easily lead to incorrect conclusions.

Chronic small bowel disease is a major disorder of cats. There are still many unknowns about its etiology and appropriate diagnostic testing. We do not need another paper that further delays proper

understanding of either of these. It is my opinion that the Marsilio paper does so.

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REFERENCES

1. Norsworthy GD, Estep JS, Kiupel M, et al. Diagnosis of chronic small bowel disease in cats: 100 cases (2008–2012). *J Amer Veter Med Assoc.* 2013;243(10):1455-1461.
2. Norsworthy GD, Estep JS, Hollinger C, et al. Prevalence and underlying causes of histologic abnormalities in cats suspected to have chronic small bowel disease: 300 cases (2008-2013). *J Amer Veter Med Assoc.* 2015;247(6):629-635.
3. Goggin JM, Biller DS, Debey BM, Pickar JG, Mason D. Ultrasonographic measurements of gastrointestinal wall thickness and the ultrasonographic appearance of the ileocolic region in healthy cats. *J Am Anim Hosp Assoc.* 2000;36:224-228.
4. Gaschen L. Ultrasonography of small intestinal inflammatory and neoplastic disease in dogs and cats. *Vet Clin North Am Small Anim Pract.* 2011;41:329-344.
5. Newell SM, Graham JP, Roberts GD, Ginn PE, Harrison JM. Sonography of the normal feline gastrointestinal tract. *Vet Radiol Ultrasound.* 1999;40:40-43.