

The Laparotomy

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Many veterinarians are shocked when I recommend a laparotomy as my first definitive diagnostic approach for chronic small bowel disease. It is the most invasive of all choices, which somehow automatically means it should be the last choice. It is also more expensive^a than other options. However, many clients end up spending far more over a few weeks to months doing other procedures that are less diagnostic and often do not yield the correct diagnosis. If you believe that primary care practitioners are not qualified to do laparotomies, you have another reason to avoid or delay a laparotomy. However, I am convinced that the laparotomy is within the capabilities of almost all primary care practitioners as long as the outlined steps are followed. Our laparotomies take about one hour from intubation to extubation, and the surgery itself takes 20-25 minutes skin-to-skin. Cats stay in our hospital two nights following surgery and generally go home eating and doing extremely well. Most clients are pleasantly surprised if not shocked at how well their cats are doing.

The key to selling anything is believing in your product or service. Once you are convinced that surgery is the correct and best approach, and once you become proficient doing it, you will find it much easier to get cats to surgery. Remember, *the least expensive diagnostic approach is the one that gets the answer the first time*. Although surgery is expensive and invasive, doing several less diagnostic tests over several weeks to months will likely be even more expensive, sometimes leaving the client without the funds to do the surgery. That leaves you without an accurate, definitive diagnosis and the client frustrated or angry.

Do not allow the client to begin a discussion of surgery until the proper ground work has been laid. Do not answer the question “How do we know what disease causes (clinical sign)?” until you have done the ultrasound, if possible. If possible, it is important to go through this discussion in this order:

Document the main clinical sign(s).

Perform an ultrasound study of the stomach and small bowel.

Explain how small bowel wall thickening causes hypomotility and then reduced absorption of nutrients leading to vomiting then weight loss/diarrhea.

Explain that there are two main differentials: IBD and lymphoma.

Explain that the only way to ascertain the diagnosis is to get biopsies of the small bowel wall.

Explain that surgery is needed to appropriately collect biopsy samples.

Explain that IBD and lymphoma are both treatable diseases with good outcomes in most cats.

How it is Done

Document the main clinical sign(s) – vomiting, diarrhea, weight loss, or a combination. Enter this into your computer software as a Diagnosis for future reference. Denote the frequency and duration of vomiting: monthly, weekly, daily. Document the amount of weight loss if you have prior weights on this

cat. If chronic diarrhea exists, verify that it is of small bowel origin, its duration, frequency, and stool consistency (watery, pancake batter, soft-serve ice cream).

State that an ultrasound study is needed on the stomach and intestines. (It is important to mention the stomach because most clients think that is where the problem originates.) If the cat is ill or hyperthyroidism is suspected, perform a CBC, chemistry profile, and TT4 first. Doing so while the client waits keeps the discussion alive; having to send out lab work then resume the discussion the next day may derail the discussion, often resulting in never getting to ultrasound. If you must send out lab work, still do the ultrasound while the client is in your office. If the cat is not ill, especially if it is a young to middle age cat, skip these tests and go straight to ultrasound. If the ultrasound study takes you directly to surgery, the CBC and chemistry profile can be done pre-operatively.

Take the client to the ultrasound room; you need them to be educated regarding what we are looking for and to see what we find. If the client observes the ultrasound study and sees that the small bowel wall is abnormal, it is much easier to get to surgery. Having on-site, immediately available ultrasound is extremely important. Delaying the ultrasound study will derail the discussion, often resulting in a halt in the diagnostic process.

Ultrasound the stomach first. If it is normal, inform the client of that fact. State that most vomiting/diarrhea/weight loss originates from the small bowel, not the stomach. This means that because the stomach is normal, the search for the diagnosis is not over. Next, move to the intestines.

As you ultrasound the small bowel, explain that we are documenting the thickness of the small bowel wall. Show a loop of bowel so you can demonstrate the four layers and how the measurements are made. Explain that normal is 0.25 cm or less. Then, measure several loops of bowel. State that many cats have segmental disease so a few normal measurements are expected, but they do not mean the entire small bowel is normal.

Once small bowel wall thickening is documented, explain that this initially results in hypomotility. The muscles in the wall do not contract normally. Food stays in the small bowel too long. When the next meal is eaten, reflex vomiting results. If hairballs are a frequent part of the vomiting, continue with this discussion. When hair is swallowed, due to normal grooming, it does not move downstream as it should resulting in hairball formation, which would not occur if motility was normal.

Now, it is time to discuss the two major differentials. State that the first, and most common (slightly), is inflammatory bowel disease. It is much like IBS (irritable bowel syndrome) or Crohn's disease in people. (This allows them to identify with a disease they are likely to relate with.) State that IBD and IBS cause the walls to be packed with inflammatory cells resulting in the thickening. Also state that we do not know the cause of this inflammation. (This means that if MDs do not know the cause of IBS, it is OK for veterinarians not to know the cause of IBD.)

The other likely disease is lymphoma. It causes the walls to be packed with lymphoma cells. Before they get too discouraged (and jump to euthanasia), state that 85% of lymphoma in cats is the good kind (small cell) and that treatment is very feasible. Note that the mainstay of treatment is a drug that has very minimal side effects. As they are considering that, also state that there is good evidence that IBD may progress to lymphoma if it is not diagnosed and treated early. This creates a sense of urgency so they do not delay a decision to see what is going to happen over the next few months.

Next, state that the only way to differentiate IBD from lymphoma is with biopsies of the small bowel wall. State that surgery is the only way to get good biopsies in the correct location. (Remind them of segmental disease, if needed.) Expect some resistance at this time and be prepared to state that cats handle

abdominal surgery MUCH better than we do. Tell them the cat stays two nights after surgery and is in very good condition when it goes home. (Typically, these cats eat well and, by the time they go home, show few signs that surgery was performed.)

Perform the surgery as soon as possible – the day of ultrasound or the next day, if possible. The farther out it is scheduled, the greater the chance that they will cancel it.

Clients often ask if treatment can be performed without a diagnosis. The short answer is ‘Yes.’ However, clients typically want to treat for IBD and “see what happens.” I point out that treating for IBD in a cat with lymphoma may prevent good response to subsequent lymphoma treatment. Cats with lymphoma often improve with corticosteroid therapy; however, the more aggressive cells will ultimately proliferate and be resistant to chemotherapy. Therefore, if treatment without histopathology is to be performed, I recommend treating for lymphoma with lomustine and steroids. IBD responds very well to this approach, providing the greatest chance of success. The downside is knowing when to discontinue treatment. Without a confirmed diagnosis, lymphoma should be assumed, and treatment should continue long-term.

It is important to understand that there are some situations when empirical treatment is the correct approach. Some cats are very poor surgical candidates, and some owners simply cannot afford surgery. Informed consent is essential and best documented in the client’s record.

Be prepared for clients to go to the Internet to verify your recommendations. Because this is a new approach to chronic small bowel disease, and because many “experts” on the Internet consider chronic vomiting to be “normal,” you are likely to get quite a few objections. I often tell clients, “The Internet is the greatest source of misinformation in the history of civilization.” When confronted with that statement, few people will dispute it.

Footnote

a. The cost of histopathology can be a significant part of the overall expense because five or more samples are submitted. Many labs charge per sample without a discount for multiple samples from the same organ. Texas Veterinary Pathology is the lab that I use for all of my histopath, including the small bowel samples. The owner, Dr. Scot Estep, is one of my co-authors on the small bowel paper¹ and is an expert in feline small bowel samples. His charges are extremely reasonable; he considers multiple samples from the small bowel as a single tissue. For information, see www.texasvetpath.com.

Reference

1. Norsworthy GD, Estep JS, Kiupel M, Olson JC, Gassler LN. Chronic Small Bowel Disease: A Study of 100 Cats: 2008-2012. J Amer Veter Med Assoc. 2013;243(10): 1455-1461.

***You will perform more
laparotomies if you have:***

- In-house CBC, Chemistry

Profile, and Total T4.

- In-house ultrasound.

- In-house surgical capability.