

For the Health and Well-being of All Cats

637 Wyckoff Ave., Suite 336, Wyckoff, NJ 07481 • www.winnfelinefoundation.org Toll Free 888-9MEOWIN (888-963-6946) • Local Phone 201-275-0624 • Fax 877-933-0939

Feline Inflammatory Bowel Disease

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Gastrointestinal disorders are among the most common problems encountered in feline medicine. Most vomiting and diarrhea episodes occur suddenly and resolve quickly with minimal to no intervention. The causes are usually benign, such as eating an unfamiliar food, transient bacterial infections, or even stress. However, some patients may have vomiting and/or diarrhea over a period of weeks to months. Workup of these chronic issues may include X-rays, bloodwork, fecal testing, and other basic diagnostic tools. This allows for detection and evaluation of conditions such as obstructions, parasites, or systemic diseases such as diabetes or hyperthyroidism. Treatment trials with a diet change, course of antibiotics, or deworming are often used to attempt symptomatic care.

When all non-gastrointestinal illnesses are eliminated, various chronic gastrointestinal disorders need to be considered. Among these are *Ollulanus tricuspis* (stomach worm infection), inflammatory bowel disease, colitis, and intestinal lymphoma. *Helicobacter pylori* infection has been documented in cats, but its role in disease is unclear. Of these conditions, inflammatory bowel disease (IBD) is by far the most common.

IBD is actually a group of gastrointestinal disorders, usually chronic in nature, which are characterized by an increase in the number of inflammatory cells found in the lining of the stomach or intestinal tract. These changes can affect the function of the GI tract leading to poor nutrient absorption, loss of protein, diarrhea, vomiting, and abdominal pain. Other symptoms include weight loss (including muscle wasting) and lethargy. Cats may lose their appetite due to nausea, or have an increased appetite from malnutrition. Some patients may defecate outside their litter box, especially if diarrhea is present. Patients with IBD may have chronic vomiting as the only sign in early or mild disease, and are often misdiagnosed as simply having "hairballs".

The causes of IBD are variable, and often no single cause can be identified in a given patient. Causes may include food allergies, dietary intolerances, chronic infections or parasite burdens, auto-immune disease, bacterial overgrowth, or many other reasons. Most IBD is likely multifactorial and partially spontaneous in nature. Several types of IBD may be identified based on the type of inflammatory cell present (lymphoplasmacytic, eosinophillic, granulomatous, etc).

Diagnosis of IBD, like many human gastrointestinal diseases, cat be difficult. A definitive diagnosis is only possible by intestinal biopsy, however many other tests can be very suggestive of IBD. Bloodwork, including white blood cell counts, protein and cholesterol levels, cobalamin and folate values, and other factors may suggest a diagnosis. Screening for retrovirus infection (FIV and FeLV) should also be performed. Abdominal ultrasonography is often a very good indicator of IBD (and allows examination of other abdominal structures such as the liver and pancreas) but cannot distinguish inflammatory disease from other conditions such as small cell lymphoma.

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In many situations, veterinarians and owners may be content with a "most likely" diagnosis of inflammatory bowel disease. This is especially true in elderly cats or those who are not stable for anesthesia. History, physical exam, bloodwork and abdominal ultrasound may be sufficient for this level of confidence. In certain cases where a definitive diagnosis is needed, intestinal biopsy is required. The two main options for intestinal biopsy are "exploratory" and "endoscopy". Exploratory surgery is the gold standard for diagnosis as it allows full examination of the entire abdomen, visual exam of the entire intestinal tract, and full-thickness intestinal biopsy. The downside to the procedure is that it is a fairly intensive surgical intervention. Laproscopic biopsies are another option that allows for exploration of the abdominal cavity and full thickness biopsies using a small camera inserted through a "port" (very small incision) in the abdomen. This procedure provides most of the benefits of a full exploratory while being easier on patients and less invasive.

Fiber-optic endoscopy is another modality available to allow workup of intestinal disease. This technology allows veterinarians to diagnose and treat many gastrointestinal disorders more easily than in the past. The endoscope is an instrument that allows visualization of the stomach and front portion of the intestinal tract through a flexible tube that is passed into either the patient's stomach or colon. The tube contains fiber-optic bundles that deliver bright light to its tip and transmit the images back into an eyepiece. Small, but adequate biopsies (about the size of this capital letter "O") can be taken using this instrument, thus avoiding surgery. The procedure is performed under a short general anesthesia with most patients able to return home the same day. Advantages to this procedure include the minimally invasive nature and the ability to examine the inner surface of the gut. Drawbacks include the inability to examine the whole GI tract, and the inability to take "full thickness" biopsies (which may lead to non-diagnostic samples). It also prevents biopsy of other organs such as the liver and pancreas.

Once diagnosed, IBD cannot usually be cured, however the disease can be controlled to prevent clinical signs, pain, and discomfort to the cat. While IBD usually starts as an inconvenience, it can progress to a painful disease that alters quality of life and can in some cases be life threatening. IBD may predispose to other diseases including pancreatitis, cholangiohepatitis, and intestinal lymphoma. Treatment is aimed at reducing clinical signs, preventing concurrent diseases, and improving quality of life.

There are several approaches to IBD treatment. First line therapy generally includes a diet change to a hypoallergenic or "GI" type of diet, combined with probiotics, potentially antibiotics (often metronidazole or tylosin) and anti-nausea medications. Metronidazole is often quite effective as it has antibacterial, antiprotozoal, and anti-inflammatory effects. This type of therapy may resolve mild disease or help to minimize the dose of other medications required.

The most common (and generally most effective) class of medications for IBD is corticosteroids. The most commonly used steroid is likely prednisolone, however dexamethasone is also an option. Both choices have advantages and disadvantages that should be discussed with your veterinarian. These medications decrease inflammation, stimulate appetite, and predispose to weight gain. They are generally

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very effective in managing IBD, and side effects are much less than those seen in dogs and humans. Potential side effects include the development of diabetes, weight gain, increased eating, drinking and urination, and behavior changes.

A newer drug, budesonide (Entocort) is sometimes used for treatment of IBD in cats. Although it is a corticosteroid drug, its effects are localized to the intestines and have less risk for systemic side effects, particularly in cats with concurrent disease (such as FIV or diabetes). Some downsides to this drug include increased cost, and the inability to treat concurrent systemic inflammatory diseases (such as pancreatitis). Treatment is generally lifelong, however it may be weaned to the lowest effective dose or given in repeated "on/off" cycles.

Severe cases of IBD may require more intensive immunosuppressive therapy such as chlorambucil (Leukeran), or potentially even lomustine (CCNU). Treatment for severe IBD mimics the care of small cell lymphoma, a type of intestinal cancer. Indeed, the differentiation between IBD and lymphoma can be very difficult, even on biopsy. Severe cases of IBD may require advanced techniques such as PARR (PCR for Antigen Receptor Rearrangement) to differentiate from early lymphoma.

Cats with IBD often experience long periods of stability with intermittent "flare-ups" that may require more intensive care. These cats require careful monitoring for the development of flare-ups and prompt treatment of pain and nausea.

Several experimental therapies are currently in development for IBD. These include mesenchymal stem cell therapy, immunomodulatory medications, and other modalities. While these are not yet in common practice, they show some potential for treatment and potentially cure of this disease.

Any cat with unexplained vomiting or diarrhea, especially chronic and intermittent in nature, should be examined for IBD. This disease is often overlooked and is under-diagnosed, leaving many cats to live in some measure of discomfort because of what owners and veterinarians dismiss as "just hairballs" or "just diarrhea".

For more information:

Veterinary Partner:

http://www.veterinarypartner.com/Content.plx?P=A&S=0&C=0&A=598

Cornell Feline Health Center:

http://www.vet.cornell.edu/fhc/Health Information/brochure ibd.cfm

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