



DANADA VETERINARY HOSPITAL, P.C.

Inflammatory Bowel Disease in Dogs

Inflammatory bowel disease (IBD) is an important and common medical problem for dogs. It is not a specific disease; rather, the term IBD represents several processes that are manifested as inflammation of the bowel. It may involve only the small intestine, large intestine, or stomach; in some cases, all parts of the gastrointestinal tract are affected.

Prevalence

IBD most often occurs in middle-aged dogs, although it may occur in any age dog. Males and females are equally affected. It may be more common in Rottweilers and German Shepherd Dogs as compared to other breeds.

Causes/Transmission

The exact cause of IBD is unknown in most cases or can be a manifestation of many different problems. Known causes can include parasites, toxins, bacterial infections, or immune reactions to specific proteins in a pet's diet. Regardless of the cause, the lining of the intestine (mucosa) becomes damaged by the inflammatory process and allows transport of proteins across the normally intact barrier. These proteins are intended to remain confined to the inside of the intestine and are not recognized by the immune system. The immune system tries to process these foreign proteins, and it leads to further damage of the intestinal lining.

Clinical Signs

Dogs with IBD generally present with a history of chronic, relapsing vomiting, diarrhea, or both. They may also have a poor appetite or may lose weight despite being ravenous.

Diagnosis

A diagnostic work-up for IBD involves a series of tests rather than one single test. There are countless illnesses that are capable of triggering IBD-like symptoms. These can be both gastrointestinal and non-gastrointestinal in nature. The goal of the veterinarian is to work through these possible causes while maintaining reasonable control of patient symptoms. A typical work-up might look like this:

CBC/Chemistry/Thyroid/Urinalysis – These tests help to identify underlying electrolyte and metabolic disturbances outside of the GI tract that could cause GI symptoms. In most cases of IBD, these results are within normal limits. However, protein, cholesterol, and globulin levels may be off with IBD. Results of this blood panel may prompt further investigation if abnormalities are found.

Fecal Analysis – A standard fecal helps to identify parasitic infection.

Diagnostic Imaging – X-rays and abdominal ultrasound can help to identify thickening of bowel, foreign material such as metals that can cause toxicity, pancreatic disease, or tumors.

GI blood panel – A specific blood panel that screens for common diseases affecting the gut such as pancreatitis, B12 deficiencies, bacterial overgrowth/dysbiosis, and pancreatic enzyme insufficiency. This test requires a 12 hour fast. Abnormalities on this test confirm the presence of gut disease, and help fine tune treatment, but are not able to definitively diagnose IBD.

Fecal PCR – a DNA test to identify common and uncommon pathogens that can affect the gut's overall health.

Diet and Medication Trials – Since many IBD cases have a dietary trigger involved, a prescription hypoallergenic or gastrointestinal diet is often employed to see if the symptoms can be improved. These trials need to go on for 2-3 months, during which time all other flavored meds, foods, and treats need to be stopped. Additionally, trials with common medications such as probiotics, anti-vomiting agents, and anti-diarrheals may take place concurrently with the diet in an attempt to eliminate or improve symptoms. Response to therapy can be a useful guide to the veterinarian to help identify or rule out causes.

Surgical or Laparoscopic Biopsy – Biopsy is the gold standard and only definitive way to diagnose IBD. However, it requires a surgical procedure to obtain samples. This can be done by traditional laparotomy (surgical incision of the belly), or by endoscopy (minimally invasive sampling using a fiber-optic scope). Biopsies help to rule out cancer and may also inform the veterinarian on the best diet choice for treatment in some cases.

Treatment

When possible, an underlying cause is identified and treated. Sometimes the above-mentioned tests will do that, and sometimes a cause cannot be found. Unfortunately, many cases of IBD are considered idiopathic (no identified cause).

As mentioned above, many dogs with IBD respond to a change in diet. The most common diet recommended for IBD patients is a hydrolyzed hypoallergenic diet. This diet contains proteins that have been broken down to molecular sizes so small that they evade the immune response in the body. Examples include Purina HA, Royal Canin Ultamino or Hydrolyzed Protein, and Hill's Z/D. Sometime the veterinarian will opt for changing the richness of the diet or trying a novel protein that your pet has never eaten before. Other times, a low fat or high-fiber option is employed. There is no right or wrong answer for which diet to try first, but it is important for pets to stay on a special diet without exception for 6-12 weeks to assess benefits appropriately. Sometimes the dietary choice has to be made based on the pet's individual dietary preferences.

Symptomatic care is used as needed throughout the course of treatment to control vomiting, and/or diarrhea. The most current research supports the use of probiotics over anti-diarrheals for most cases of

diarrhea. However, anti-diarrheals are used when necessary. The goal is to minimize symptoms and maintain weight with the least amount of medication necessary.

If results of the GI blood panel were abnormal, specific medicines may be employed to address these abnormalities. Pets with B12 (cobalamin) deficiency require regular supplementation of this vitamin (injections or pills) to help them efficiently absorb nutrients. Pets with overgrowth of bacteria in their gut (dysbiosis) require specific therapy with an anti-biotic/anti-inflammatory powder to restore the proper flora. Dogs with pancreatic insufficiency cannot digest food appropriately without the addition of digestive enzymes with their food.

If the above care is not enough to control your dog's symptoms, immune-modulating medications are started. Corticosteroids (e.g., Prednisone) are the first choice due to their relatively quick onset and minimal expense. Steroids do carry some downside though. Patients on steroids, especially those requiring higher doses, will undoubtedly experience increased thirst, urination, and appetite as they are treated. These side effects can be a nuisance to pet parents at first, but as the disease improves, dosing is typically tapered to low enough doses or frequencies that these symptoms improve. Dogs on higher doses of steroids are also at increased risk of GI ulcerations and bleeding so preventative GI protective medication may be necessary.

Starting on steroids is a complicated decision that hinges on the effectiveness of other treatments as well as the risks that a pet parent is willing to accept. It is important to know that steroids can adversely affect biopsy results in dogs. Therefore, if you plan to get biopsies to confirm a diagnosis, steroids should be avoided whenever possible. Also, the top differential diagnosis for IBD is intestinal cancer. If your dog gets a biopsy result confirming cancer, and they have already received steroids, it may lessen their responsiveness to chemotherapy and worsen their prognosis.

Other immune-modulating medications may be added or used in place of steroids at the discretion of your veterinarian and depending on your dog's response to therapy.

Prognosis

In most cases, it is reasonable to hope for control of the disease (Minimal bouts of vomiting and diarrhea while maintaining body weight and appetite). However, unless a specific cause can be identified, IBD is not a curable condition. Intestinal biopsies can be helpful in determining severity and prognosis of your dog's individual disease. Treatment is typically expected to be lifelong, but many pets with IBD do not succumb to their GI disease. In some cases that involve leakage of protein from the gut prognosis can be much more guarded, and response to therapy is more variable. There are also severe cases of IBD that can mutate over time into a cancerous disease called intestinal lymphoma. This has a grave prognosis.