

INFLAMMATORY BOWEL DISEASE

What is inflammatory bowel disease?

Inflammatory bowel disease (IBD) is not a specific disease. Rather, it is a specific reaction that the stomach or intestines have to chronic irritation.

What are the clinical signs of IBD?

If the stomach is involved, your dog will have chronic vomiting. If the intestines are involved, chronic diarrhea will occur. This is the most common form. In some dogs, both parts of the digestive tract are involved so both vomiting and diarrhea occur.

If the disease occurs for several weeks to months, weight loss and poor appetite are common.

When is the most common occurrence?

IBD is most common in middle-aged to older dogs.

How is IBD diagnosed?

The chronic irritation that causes IBD stimulates the body to send cells from the immune system to the area. The most commonly found cells are lymphocytes and plasmacytes. Occasionally, eosinophils and neutrophils will be found. Thus, the disease is diagnosed when these cells are identified in abnormal levels in the tissue. A pathologist is responsible for this part of the diagnosis; his or her report usually calls the disease lymphoplasmacytic gastritis (stomach) or lymphoplasmacytic colitis (colon).

In order to obtain these cells, a biopsy is required. In most cases, an endoscope is passed into the dog's stomach or colon (with the dog under anesthesia). A tiny biopsy instrument is passed through the endoscope and used to take small samples of the lining (mucosa) of the affected organ.

Is that all that is required for diagnosis?

The tissue reaction that occurs in the stomach or colon is diagnosed with biopsy. However, determining what is causing the tissue reaction to occur requires further testing. Tests or treatments should be performed to rule out stomach and intestinal parasites, cancer, and infections. Diseases such as hyperthyroidism and diabetes are considered. In addition, diseases of the kidney, liver, and pancreas should also be ruled out.

How is IBD treated?

The ideal way to treat this problem is to diagnose the underlying disease that is causing the reaction. Sometimes the above mentioned tests will do that, and sometimes a cause cannot be found. In the latter situation, the disease is called idiopathic. That means that a disease is present, but there is no known cause. Many cases of IBD are considered idiopathic.

Some dogs with IBD respond to a change in diet. This is done in two ways. First, a food is chosen that contains a protein source that the dog has never had. If that is not effective, a high-fiber diet is tried. Unfortunately, a true food trial requires that the test diet be fed *exclusively* for 4-6 weeks. If dietary therapy is not successful or feasible, drugs are used to suppress the inflammatory reaction. Corticosteroids ("cortisone") are the most effective so they are used first. Other drugs are tried if corticosteroids are not successful.



Do corticosteroids cause side-effects in dogs?

Corticosteroids are notorious for causing a variety of side-effects in humans. However, this is rarely the case in dogs. However, to minimize any possible adverse effects, our goal is to use the lowest dose that is effective and to give it on an every other day schedule. It will be necessary to begin therapy with a rather high dose, but once response occurs the dose is tapered to a minimal level.

Why are they given every other day?

Prednisolone, the most commonly used corticosteroid, is in the body about 36 hours after it is given by mouth. If it is given daily, some of the previous day's dose is still present. The adrenal glands produce corticosteroids for the body. If a prolonged level of prednisolone is in the body, the adrenal glands receive a message telling them to stop production. This will affect the production of corticosteroids and other important substances.

By giving prednisolone every other day, the last dose is out of the body for about 12 hours before the next dose is given. During this 12 hour period, the adrenal glands are stimulated to function.

The dog's adrenal glands function primarily in the evening hours. By giving prednisolone in the morning, the 12 hour off period will occur when the adrenal glands are ready to work. Thus, the preferred way to give prednisolone on a long-term basis is to give it every other morning. Even if several tablets are given, all are given at the same time.

Does this mean that I will be giving prednisolone for the rest of my dog's life?

Long-term therapy is required for many dogs. Generally, a dog is treated for a few months then prednisolone is discontinued to see if it is still needed. If the signs of vomiting or diarrhea recur, it is resumed.

Are other anti-inflammatory drugs used?

Prednisolone is the most effective anti-inflammatory drug with the least side-effects. However, it is not effective in all dogs. Sometimes a stronger drug is used initially to gain control of the disease. Then, prednisolone is tried again as a maintenance drug.

Could stomach infections be a cause of IBD?

There are some spiral-shaped bacteria that can cause vomiting in dogs. The most common is *Helicobacter*. These bacteria have been shown to be the cause of disease, including stomach ulcers, in humans and are also pathogens in dogs. However, they are also found in many normal dogs and humans. Therefore, just finding spiral-shaped bacteria on biopsy is not always meaningful. It is considered a pathogen only if an associated inflammation is in the stomach mucosa.

Are these infections treatable?

Usually. When found in humans, successful treatment may require several medications or combinations of medications. Currently we are using what is effective in humans to treat dogs. This approach is successful in most dogs, but we have quite a great deal to learn about the most effective means of treatment.

Can these bacteria affect me or my family?

This is a concern for all of us who have dogs. It is known that many people have these bacteria in their stomach for decades before disease occurs. Therefore, it is almost impossible to know the source of the bacteria. It is doubtful that dogs are involved in the transmission process, but that has not been determined at this time.

What is the prognosis?

If response occurs to a diet change, the dog can be maintained on a different diet for the rest of its life (if the diet is a balanced diet for dogs). If the dog responds to medication for stomach bacteria, a good prognosis is justified. If response occurs to corticosteroids, the long-term prognosis is also good if administration of the drug is feasible. However, if there is no response to diet or corticosteroids, the prognosis is more guarded. At that point, further testing is suggested to see if an underlying disease can be found.