

Inflammatory Bowel Disease in Dogs

Inflammatory bowel disease (IBD) is an important and relatively common medical problem of 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.

Causes/Transmission

In most dogs, the cause (or causes) of IBD are not found. When a cause is not identified, it is called “idiopathic IBD.” Some of the identified causes include infection with certain types of bacteria or other parasites, toxins, dietary intolerance, or immune reactions. 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

Three general presentations have been identified for IBD: (1) dogs with primarily vomiting, (2), dogs with primarily diarrhea, and (3) dogs with both vomiting and diarrhea. It often begins as an intermittent event but, over months to years, progresses to the point that medical care is sought.

Diagnosis

Chronic inflammation stimulates immune cells, primarily lymphocytes and plasma cells, to invade the stomach and/or intestinal wall. Occasionally, eosinophils and neutrophils will be found. Thus, the disease is diagnosed when these cells are identified in abnormal numbers in the tissue. A pathologist is responsible for this part of the diagnosis; his or her report usually calls the disease lymphoplasmacytic gastritis (stomach), lymphoplasmacytic enteritis (intestine), or lymphoplasmacytic colitis (colon).

In order to obtain these cells, a biopsy is required. This can be done with an endoscope passed into the dog’s stomach, small intestine 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. These biopsies, while fairly superficial, are extremely helpful in determining the type of cells present. Alternatively surgery can be performed to obtain biopsies and check the entire length of the intestinal tract for other abnormalities such as tumors, foreign bodies, etc.

While the presence of an inflammatory process is determined with a biopsy, isolating the cause of the inflammation will usually require other tests. Tests or treatments should be performed to rule out stomach and intestinal parasites, cancer, and infections. In addition, diseases of the kidney, liver, and pancreas should also be ruled out. In many cases, the cause cannot be determined.

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.

Some dogs with IBD respond to a change in diet. 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. Prednisolone is the most effective of the corticosteroids and has the least side effects. However, it is not effective in all dogs. Other drugs can be tried if corticosteroids are not successful.

Corticosteroids are renowned for causing a variety of side effects in humans. This is not a much a problem in dogs as humans; however, to minimize any possible adverse effects, the lowest possible dose that is effective is administered.

It will be necessary to begin therapy with a rather high dose, but once response occurs, the dose is gradually tapered to the point that the signs are controlled. Long-term therapy is required for many dogs. Generally, a dog is treated for a few months then prednisolone is tapered to a lower dose to see if it is still needed. If the signs of vomiting or diarrhea recur, it is resumed.

Prognosis

In most cases, it is reasonable to hope for control of the disease. However, unless a specific cause can be identified, a cure is not expected. Also, the intestinal biopsies taken with the endoscope can be helpful in determining the severity of the IBD, which helps in considering prognosis. In some cases of severe lymphoplasmacytic IBD, the dog will progress to a malignant process, called intestinal lymphoma. This has a grave prognosis.

Transmission to Humans

IBD is not transmitted to humans.