Inflammatory Bowel Disease

**Basics**

**OVERVIEW**
- A group of long-term (chronic) intestinal disorders (known as “enteropathies”; singular, enteropathy); characterized by persistent gastrointestinal signs (such as vomiting, diarrhea, weight loss) and microscopic evidence of inflammation of the intestines
- Also known as IBD

**GENETICS**
- Susceptibility genes (like those seen in human inflammatory bowel disease) have not been identified in dogs and cats
- Certain forms of IBD are more common in some breeds of dogs and cats, suggesting a possible genetic component of the disease processes
- Certain genes, which are important components of normal immune responses, may make an individual susceptible to the development of IBD and are suspected in affected dogs, and possibly cats

**SIGNALMENT/DESCRIPTION OF PET**

**Species**
- Dogs
- Cats

**Breed Predilections**
- Some dog breeds are more likely to develop inflammatory bowel disease than other breeds; examples of specific diseases and the breeds they affect are immunoproliferative enteropathy of basenjis and Norwegian Lundehunds; histiocytic colitis of French bulldogs and boxers; and gluten-sensitive enteropathy in Irish setters; an increased incidence of IBD also is seen in the German shepherd dog
- Siamese may be more likely to develop IBD than other cat breeds
IBD is common in mixed-breed dogs and cats

**Mean Age and Range**
- Most common in middle-aged pets, although younger pets (less than 2 years of age) may be affected

**Signs/Observed Changes in the Pet**
- **Dogs**—chronic intermittent vomiting, large- and/or small-bowel diarrhea, and weight loss are common
- **Cats**—lack of appetite (known as “anorexia”) is most common, followed by weight loss, vomiting, and diarrhea
- Rumbling or gurgling noises in the gastrointestinal tract (known as “borborygmus”); presence of excessive gas in the stomach and intestines (known as “flatulence”); blood in the stool (known as “hematochezia”); abdominal pain; and stools with mucus are reported less commonly
- **Pet may appear healthy or may be thin and depressed**
- **Poor hair coat is noted frequently**
- Abdominal palpation (that is, feeling the abdominal organs during physical examination by your pet’s veterinarian) may reveal painful, thickened bowel loops and enlarged mesenteric lymph nodes (especially in cats)
- Fluid build up in the abdomen (known as “ascites”) may occur in dogs with protein-losing enteropathy (condition in which proteins are lost from the body through the intestines)

**Causes**
- Cause is unknown; most likely many factors lead to disease
- Cause likely involves complex interactions between the pet’s genetics; immune capabilities and response of the lining of the intestinal tract (known as “mucosal immunity”); and environmental (gastrointestinal bacteria) factors
- *Giardia, Salmonella, Campylobacter*, and normal resident gastrointestinal bacteria have been implicated
- *E. coli* has been associated with nodular lesions of the lining of the intestines (known as “granulomatous mucosal lesions”) in dogs with histiocytic ulcerative colitis; “histiocytic ulcerative colitis” is inflammation characterized by a thickened lining of the colon with varying degrees of loss of the superficial lining (known as “ulceration”); the thickening is due to infiltration of various cells (histiocytes, plasma cells, and lymphocytes) in the layers under the lining
- Meat proteins, food additives, artificial coloring, preservatives, milk proteins, and gluten (wheat) are proposed causative agents; dietary factors appear to be important in the development of long-term (chronic) inflammation in dogs and cats with inflammatory bowel disease

**Treatment**

**Health Care**
- Outpatient, unless the pet is debilitated from dehydration; low protein in the blood (known as “hypoproteinemia”); or has extreme weight loss with muscle wasting (known as “cachexia”)
- If the pet is dehydrated or must not be given food or water by mouth because of vomiting, fluids (such as lactated Ringer’s solution) should be administered
- If the pet has severely low levels of albumin in the blood (known as “severe hypoalbuminemia”) due to loss of protein into the intestinal tract (known as “protein-losing enteropathy”), consider colloids; colloids are fluids that contain larger molecules that stay within the circulating blood to help maintain circulating blood volume; examples are dextran and hetastarch

**Activity**
- No restrictions

**Diet**
- Dietary manipulation is important, as dietary factors likely contribute to disease
- Feed a novel protein or hydrolyzed protein elimination diet to help reduce intestinal inflammation; a “novel protein” source is feeding a protein to which the animal has never been exposed; a “hydrolyzed protein” diet is one in which the protein source has been processed to break down the protein into smaller units, less likely to cause an inflammatory response
Cobalamin—vitamin B12; low levels of cobalamin in the blood (known as “hypocobalaminemia”) require supplementation of cobalamin by weekly injections.
Fiber supplementation is suggested in dogs and cats with inflammation of the colon (colitis).
Dietary requirements may be based on specific disease (for example, avoiding gluten or wheat in Irish setters with gluten-sensitive enteropathy).

**SURGERY**
- No surgical procedures are available for relief of inflammatory bowel disease in veterinary patients.

**Medications**
Medications presented in this section are intended to provide general information about possible treatment. The treatment for a particular condition may evolve as medical advances are made; therefore, the medications should not be considered as all inclusive.
- Depend on the underlying cause.
- Affected pets should be treated with drugs to suppress the immune response (known as “immunosuppressive drugs”).

**Follow-Up Care**

**PATIENT MONITORING**
- Periodic evaluations every 2–4 weeks may be necessary, until the pet’s condition stabilizes.
- No other follow-up may be required except yearly physical examinations and assessment during relapses.

**PREVENTIONS AND AVOIDANCE**
- Depend on the underlying cause.
- Avoid foods, food ingredients, or artificial colorings that may contribute to intestinal inflammation.

**POSSIBLE COMPLICATIONS**
- Dehydration; malnutrition; adverse drug reactions; low levels of protein in the blood (hypoproteinemia); low levels of cobalamin (vitamin B12) in the blood (hypocobalaminemia); and low red-blood cell count (known as “anemia”).
- Depend on the underlying cause.

**EXPECTED COURSE AND PROGNOSIS**
- Generally a good-to-excellent short-term prognosis.
- Poor long-term prognosis in dogs with IBD has been associated with severe clinical disease; fluid buildup in the abdomen (ascites); low levels of albumin in the blood (hypoalbuminemia); and marked abnormalities of the intestinal lining observed using a special lighted instrument called an “endoscope” that is passed through the mouth into the esophagus, stomach, and intestines (general term for procedure is “endoscopy”).

**Key Points**
- Inflammatory bowel disease is not cured, but it is controllable in most affected pets.
- Relapses are common.
- Be patient during the various food and medication trials that often are necessary to get the disease under control.
- Strictly adhere to the diet recommended by your pet’s veterinarian.