

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

- Defects in some susceptibility genes have been identified in dogs (German shepherd dog, boxer, soft-coated Wheaten terrier)

SIGNALMENT/DESCRIPTION OF PET

Species

- Dogs
- Cats

Breed Predispositions

- 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
- Boxers have mutations in *NCF2*, a gene for clearance of bacteria from the cells
- An increased incidence of IBD also is seen in the German shepherd dog; immunity mutations in *TLR2*, *TLR5*, and *nod2*
- 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 buildup 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, diet) 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”)
- 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”), the veterinarian will consider colloids; colloids are fluids that contain larger molecules that stay within the circulating blood to help maintain circulating blood volume, an example is hetastarch

ACTIVITY

- No restrictions

DIET

- Dietary manipulation is important, as dietary factors likely contribute to disease
- The veterinarian may recommend feeding 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); examples include pumpkin, Metamucil®
- Omega-3 supplements for reduction of intestine inflammation
- Probiotics may benefit some animals, unproven
- 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”) for certain conditions
- Certain colitis types are treated with fluoroquinolone antibiotics

Follow-Up Care

PATIENT MONITORING

- Periodic evaluations every 2–4 weeks may be necessary, until the pet's condition stabilizes; periodic laboratory testing may be required
- No other follow-up may be required except yearly physical examinations and assessment during relapses

PREVENTIONS AND AVOIDANCE

- Depend on the underlying cause
- To assist with control, 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