



Colitis and Proctitis

(Inflammation of the Colon and Rectum)

Basics

OVERVIEW

- “Colitis” is inflammation of the colon
- “Proctitis” is inflammation of the rectum

GENETICS

- Breed susceptibility to histiocytic ulcerative colitis in boxers; 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
- Possible association between inflammation of the colon (colitis) and one or multiple draining tracts around the anus (known as “perianal fistulas”) in German shepherd dogs

SIGNALMENT/DESCRIPTION OF PET

Species

- Dogs
- Cats

Breed Predilections

- Boxers—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
- German shepherd dogs—possible association between inflammation of the colon (colitis) and one or multiple draining tracts around the anus (perianal fistulas)

Mean Age and Range

- Any age
- Boxers usually have clinical signs by 2 years of age

SIGNS/OBSERVED CHANGES IN THE PET

- Feces vary from semiformed to liquid
- High frequency of defecation, with small volume of stool
- Pets often demonstrate prolonged straining (known as “tenesmus”) after defecation
- Long-term (chronic) diarrhea often with mucus and/or blood; cats may have formed feces with blood (known as “hematochezia”)

- Occasionally pain when defecating
- Vomiting in approximately 30% of affected dogs
- Weight loss—uncommon
- Physical examination usually normal; dogs with histiocytic ulcerative colitis may show signs of weight loss and lack of appetite (known as “anorexia”); 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

CAUSES

- Dietary indiscretion—the pet eats inappropriate things (such as garbage)
- Dietary intolerance—the pet eats something to which it is sensitive or something it cannot tolerate
- Medications—antibiotics, nonsteroidal anti-inflammatory drugs (NSAIDs)
- Infectious—parasites (such as whipworms [*Trichuris vulpis*], hookworms [*Ancylostoma caninum*], *Entamoeba histolytica*, *Balantidium coli*, *Giardia*, *Tritrichomonas*, *Cryptosporidium*), bacteria (such as *Salmonella*, *Clostridium*, *Campylobacter*, *Yersinia enterocolitica*, *Escherichia coli*), algae (*Prototheca*), fungus (*Histoplasma capsulatum*), and pythiosis/phycomycosis
- Trauma—foreign body, abrasive material
- Excess levels of urea and other nitrogenous waste products in the blood (known as “uremia” or “azotemia”)
- Segmental—secondary to long-term (chronic) inflammation of the pancreas (known as “pancreatitis”)
- Allergic—dietary protein, possibly bacteria
- Inflammatory/immune disorders—characterized by the type of cells found in the inflamed colon, such as lymphoplasmacytic, eosinophilic, granulomatous, and histiocytic colitis

Treatment

HEALTH CARE

- Outpatient medical management, unless diarrhea is severe enough to cause dehydration
- Balanced electrolyte fluids for dehydrated pets

DIET

- Pets with sudden (acute) inflammation of the colon (colitis) can be fasted for 24–48 hours
- Try a hypoallergenic or novel protein (a protein to which the pet has never been exposed) diet in pets with inflammatory colitis; use a commercial or home-prepared diet that contains a protein to which the dog or cat has not been exposed
- Fiber supplementation with poorly fermented fiber (such as bran and α -cellulose) is recommended to increase fecal bulk, improve colonic muscle contractility, and bind fecal water to produce formed feces
- Some fermentable fiber (such as psyllium or a diet containing beet pulp or fructo-oligosaccharides) may be beneficial—short-chain fatty acids produced by fermentation may help the colon heal and restore normal colonic bacteria

SURGERY

- Segments of colon severely affected by scar tissue (known as “fibrosis”) from long-term (chronic) inflammation and subsequent narrowing (known as “stricture formation”) may need surgical removal; folding of one segment of the intestine into another segment (known as “intussusception”) requires surgical intervention; inflammation secondary to the water mold, *Pythium* (disease known as “pythiosis”) or to a particular fungal infection (known as “phycomycosis”) often requires surgical removal or debulking

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

ANTIPARASITIC OR ANTIMICROBIAL DRUGS

- Whipworms (*Trichuris*), hookworms (*Ancylostoma*), and *Giardia*—fenbendazole (repeat treatment in 3 months)

- *Entamoeba*, *Balantidium*, and *Giardia*—metronidazole
- *Giardia*—albendazole may be an alternative medication to treat giardiasis, if fenbendazole or metronidazole is ineffective; monitor for bone-marrow suppression
- *Tritrichomonas foetus*—possibly ronidazole
- *Salmonella*—treatment is controversial because a carrier state can be induced; in pets with generalized (systemic) disease involvement, choose the antibiotic on the basis of bacterial culture and sensitivity testing (antibiotic examples include enrofloxacin, chloramphenicol, or trimethoprim-sulfa)
- *Clostridium*—metronidazole or tylosin
- *Campylobacter*—erythromycin or tylosin
- *Yersinia* and *E. coli*—choose the drug on the basis of bacterial culture and sensitivity testing
- *Prototheca*—no known treatment
- *Histoplasma*—itraconazole; amphotericin B in advanced cases
- Pythiosis/phycomycosis—amphotericin B lipid complex

ANTI-INFLAMMATORY AND IMMUNOSUPPRESSIVE DRUGS FOR INFLAMMATORY/IMMUNE COLITIS

- Sulfasalazine; long-term use may be needed
- Steroids—prednisone (taper dosage slowly over 4–6 months as directed by your pet's veterinarian, once clinical remission is achieved)
- Azathioprine—a chemotherapy drug used to decrease the immune response (dogs); consider chlorambucil (a chemotherapy drug) in cats
- Cyclosporine—to decrease the immune response
- Sulfasalazine or other 5-ASA drugs—may be the drugs of choice for plasmacytic lymphocytic colitis (inflammation of the colon characterized by the presence of plasma cells and lymphocytes; plasma cells are specialized white blood cells; plasma cells are lymphocytes that have been altered to produce immunoglobulin, an immune protein or antibody necessary for fighting disease; a lymphocyte is a type of white blood cell, formed in lymphatic tissue throughout the body)
- Prednisone and azathioprine are indicated in treatment of eosinophilic colitis (inflammation of the colon characterized by the presence of eosinophils; eosinophils are a type of white blood cell; they are involved in allergic responses by the body and are active in fighting larvae of parasites) and *severe* plasmacytic lymphocytic colitis that does not respond to other therapies
- Histiocytic ulcerative colitis in dogs may respond to treatment with enrofloxacin alone or in combination with metronidazole and amoxicillin for 6 weeks; histiocytic ulcerative colitis is inflammation characterized by a thickened lining of the colon with varying degrees of loss of the superficial lining (ulceration); the thickening is due to infiltration of various cells (histiocytes, plasma cells, and lymphocytes) in the layers under the lining

MOTILITY MODIFIERS (SYMPTOMATIC RELIEF ONLY)

- Loperamide
- Diphenoxylate
- Propantheline bromide, if colonic spasm is contributing to clinical signs

Follow-Up Care

PATIENT MONITORING

- Recheck examinations or client communication by phone
- Monitor pets on sulfasalazine for signs of dry eye (known as “keratoconjunctivitis sicca” or KCS)
- Monitor pets on azathioprine for bone-marrow suppression—complete blood count (CBC)
- Monitor pets on amphotericin B and amphotericin B lipid complex—bloodwork (serum biochemistry profile) and urinalysis to check kidney function

PREVENTIONS AND AVOIDANCE

- Avoid exposure to infectious agents (such as exposure to other dogs, contaminated foods, moist environments)
- Avoid sudden changes in diet

POSSIBLE COMPLICATIONS

- Recurrence of signs without treatment, when treatment is tapered, and with progression of disease
- Narrowing of the colon or rectum (stricture formation) due to long-term (chronic) inflammation

EXPECTED COURSE AND PROGNOSIS

- Most infections causes—excellent with treatment
- Infection with *Prototheca* (type of algae)—grave; no known treatment except surgical removal of diseased tissue
- Infection with *Histoplasma* (type of fungus)—poor in advanced or widespread (disseminated) disease; mild to moderate cases generally respond to therapy
- Pythiosis/phycomycosis—guarded to poor; poorly responsive to treatment; some dogs have fair results with surgical removal of affected tissue and treatment with amphotericin B lipid complex
- Traumatic, uremic, and segmental—good, if underlying cause is treatable
- Cecal inversion, ileocecolic intussusception, and polyps—good with surgical removal
- Inflammatory—good with treatment in pets with lymphoplasmacytic, eosinophilic, and possibly histiocytic disease

Key Points

- Treatment may be intermittent and long-term in pets with inflammatory/immune colitis, and repeated recurrence is seen in some cases
- Some types of colitis respond poorly to medical treatment; surgery may be necessary

Notes

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