

## ULCERATIVE COLITIS IN A DOG

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A ten year- old intact male, labrador was presented at the Veterinary Clinical Complex Nagpur, with complaints of sudden loose stools accompanied by hematochezia with an urge of frequent defecation, inappetence and abdominal pain. There was no history of sudden change in diet. On physical examination, the patient showed normal rectal temperature, 3-5% degree of dehydration (sticky mucus membrane), Conjunctivae was pale, capillary refill time less than 2 second, heart rate 132 beats /min and anemia. A snap test was negative for corona and parvo viral infection. Fecal sample was negative for ova of helminths. A peripheral blood smear was examined to rule out infection involving haemo- protozoan. Based on the clinical signs, physical examination and other diagnostic tests the case was diagnosed to be of Ulcerative colitis which was managed by antibiotics, fluids, corticosteroids and oral supplements.

**Keywords:** Antibiotics, Corticosteroids, Labrador, Dog, Ulcerative colitis.

Colitis refers to inflammation of the large intestine (colon). Typical indications in colitis are frequent diarrhea associated with large intestine featuring mucus or blood or both, this often is accompanied by pain at the abdomen region and a sense of immediate urge to defecate. Vomiting may be a feature of the condition though the characteristic diarrhea is the hallmark (Ishii *et al.*, 2022). Large intestinal diarrheas are generally not associated with weight loss, and patients generally have normal energy levels and normal appetites. Major role of colon comprises of conservation of water and electrolytes and storage of feces till defecation. Inflammation of colon alters the amount of water and electrolytes absorbed and also produces cytokines, these cytokines causes giant migrating contractions which leads to sudden and frequent emptying of the bowel.

### Case history and Observations

A ten year old intact male Labrador dog was presented at Veterinary Clinical Complex Nagpur with complaints of frequent loose motions with frank blood and mucus since 2 days. On detailed anamnesis the onset of the loose motions were sudden with a single episode of vomiting. There was

inappetence, normal water intake, urine out put and no history of change in diet, The patient had a regular vaccination and deworming record. On physical examination the patient was slight dull and lethargic with a normal rectal temperature, 3-5% degree of dehydration (sticky mucus membrane), conjunctival mucus membrane slight pale, capillary refill time less than 2 second, lymph nodes normal, heart rate of 132 beats /min and anemia. Snap test was negative for corona and parvoviral infection. Fecal sample was negative for ova of helminths. A peripheral blood smear was examined to rule out infection involving haemo- protozoan. On the basis of clinical signs this case was diagnosed to be a case of Ulcerative Colitis. The case presented was ruled out for food hypersensitivity, heavy parasitic load and any kind of obstruction in the tract. Being only a single Clinical case, all the clinical signs depicted the case to be of Ulcerative Colitis as a symptomatic and tentative diagnosis..

### Treatment

After diagnosing Ulcerative Colitis, the patient was managed with fluids Ringer's Lactate @10ml/kg intravenous BID, Injection Metronidazole @15mg/kg intravenous BID, Injection Enrofloxacin @5mg/kg

intramuscular OD, Injection Prednisolone @1mg/kg intramuscular BID, Injection ondansetron @0.2 mg/kg intramuscular BID, Tab Rabeprazole orally twice. Oral supplements comprised of Powder Haltorin 3scoops BID, Suspension Sucralfate 5ml TID.

There was subjective improvement, the appetite improved, the hydration levels improved, and the frequent sudden urge to defecate reduced progressively with no blood and no mucus (Fig 1) and (Fig 2).



**Fig.1: Before Treatment**



**Fig. 2: After Treatment**

### Results and Discussion

Ulcerative colitis is a type of inflammatory bowel disease. Ulcerative colitis causes accumulation of macrophages and inflammation of the intestine which leads to break in the continuity of epithelium and migration of macrophages leading to increase mucus and blood in the stools, the inflammation causes reduced absorption of electrolytes and production of cytokines which causes giant migrating contractions which leads to large bouts of sudden and frequent loose stools lined with mucus and fresh blood as also reported by Feuerstein *et al.*, 2014 and Nolte *et al.*, 2017. The inflammation is usually caused due to *E.coli* as also mentioned by Argenta *et al.*, 2018. The case was managed with the help of dual antibiotic course involving Enrofloxacin very potent against *E.coli* and Metronidazole a narrow spectrum antibiotic which specifically kills the harmful bacteria thus favoring the growth of beneficial bacteria in the gut microbiota as also mentioned by Yogeshpriya *et al.*, 2017. A corticosteroid Prednisolone was administered to lower down the body's immune response thus reducing the extent of inflammation as also recorded by Rak *et al.*, 2023. An antiemetic Ondansetron was administered to keep a check on vomiting.

Mucoprotectant Sucralfate and Rabeprazole was administered to form a barrier to avoid acid penetration which would help in the healing of ulcers. Oral supplements hydrated calcium and aluminosilicate clay (Haltorin) was administered to regulate the bowel functions to maintain the gut health. Being only a single Clinical case, all the clinical signs depicted the case to be of Ulcerative Colitis as a symptomatic and tentative diagnosis. The patient showed tremendous improvement with the commencement of the treatment (Fig.2).

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