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Treatment of chronic gastritis in an adult labrador working dog: A case study

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Abstract
Gastritis is a common condition in dogs resulting due to inflammation of the gastric mucosa. The stomach lining can be subjected to irritation by several substances including foreign bodies and food components, which may disagree with the digestive system of canine.
An adult Labrador working male dog, named as "Diesel" aged eight years and six months was presented with complaints of decreased feed intake and stomach upset. Temperature and general activity remained normal. Vomiting with foamy bile was seen twice a day.
All the hemato-biochemical parameters were within normal range except for blood urea, serum creatinine and alkaline phasphatse, which showed higher values.
Based on the clinic-biochemical presentation, the case was diagnosed as chronic gastritis and the treatment regime comprising of fluid therapy, antiemetics, antacids and antibiotics was administered. The animal responded to the treatment and recovery was uneventful.

Keywords: labrador working male dog, chronic gastritis, clinical pathology, treatment, recovery

Introduction
Gastritis is a common condition in dogs resulting due to inflammation of the gastric mucosa. The stomach lining can be subjected to irritation by several substances including foreign bodies and food components, which may disagree with the digestive system of canine.
Gastritis can be acute where in clinical manifestations appear suddenly and severely, or chronic, where it appears steadily and worsen over the period of time.
Gastric mucosa becomes inflamed and the prominent symptoms include excessive vomiting with yellow foamy bile, decreased appetite or anorexia, dehydration or increased thirst, diarrohea and abdominal discomfort or pain. In acute gastritis, these symptoms can be severe, which may be relived within 24 hours. Chronic gastritis typically last for two or more weeks and worsen over time, leading to other conditions including ulcers, gastrointestinal blockage, and infection. (Clarke, 2020).

Case history and clinical findings
An adult Labrador working dog, Trade Tracker, of the unit, 33 Battalion, Sashastra Seema Bal (SSB), Kewti, P.O. Bhanupratappur, Uttar Bastar, Dist. Kanker, Chattisgarh, India named as "Diesel" aged around eight years and six months was presented with complaints of decreased feed intake and stomach upset. Temperature and general activity remained normal. Vomiting with foamy bile was seen twice a day.
The complete blood count (CBC) and serum biochemical values are presented in Table 1.

Table 1: Complete blood count (CBC) and serum biochemical values of Labrador Dog, Diesel, Male as on 05/10/2020

Hematological parameters		
Parameter	**Value**	**Normal range (Adults)**
Hemoglobin	13.9	M-13-18 gm%, F-11.5-16 gm%
Total WBC	8600	4000-11000/cmm
Neutrophils	70	40-75%
Lymphocytes	26	20-45%
Eosinophils	02	1-6%
Monocytes	02	1-10%
Basophils	00	0-1%
Platelets	1, 09, 000	1, 50, 000-4, 50, 000/cmm
RBC Count	6.30	M-4.5-6.5 million/cmm, F-3.9-5.6 million/cmm
MCV	61.0	76-96 cubic micron
MCH	22.1	27-32 microgram
MCHC	36.2	30-35%
Biochemical parameters		
Parameter	**Value**	**Normal range (Adult)**
Blood urea	63.7	10-50 mg/dl
Serum creatinine	2.86	0.9-1.4 mg/dl
Serum protein (T)	7.15	6.0-8.0 gm/dl
Serum Albumin	2.0	3.8-5.0 gm/dl
Serum Globulin	5.15	2.3-35 gm/dl
SGPT (ALAT)	37	9-43 ul
Serum Alkaline Phosphates	47	80-306 ul

Appetizers and antacids were given initially as a symptomatic treatment with low fat diet for three days, however, no improvement was observed in the condition of the dog.

A course of antibiotics was also given along with antiemetics and gastroprotectives to treat any bacterial infection. The dog showed minimal interest in feeding because of abdominal discomfort.

Intravenous fluid therapy was given for rehydration and restoration of electrolytes along with antiemetics so as to control vomiting.

The food was withheld and the dog was given small amounts of water at regular intervals for 24 to 48 hours, food was gradually reintroduced in small amounts. A low fat diet included milk and oatmeal.

With above course of treatment for 5 days significant improvement was seen. Appetite resumed in due course of time, however, the dog did not recovered completely.

The treatment regime which followed is enumerated in detail as under:

1. Fluid therapy with gastric mucosal therapy

As due to vomiting and Diarrhoea, immediate correction of hypokalemia with antispasmodics was required because hypokalemia leads to hindrance in gastric emptying (Bichard and Sherding, 2005) [4].

GI protectants in combination with drugs containing H2 receptor antagonists (cimetidine, ranitidine, famotidine), proton pump inhibitors (omperazole, pantoprazole), cryoprotectants (Sucralfate) and synthetic prostaglandins (misoprostol), were used.

Ranitidine @ 2mg/kg was given orally for gastric acid suppression (Bersenas *et al.*, 2005) [3].

Proton pump inhibitors were used as most potent agents for suppression of gastric acid secretion.

Famotidine @ 0.5 mg/kg, omperazole @ 1 mg/kg orally quarterly 24 hrs and pantoprazole @ 1 mg/kg I.V. were used These drugs shield healthy and uncovered mucosa from more worm and encourage epitheliacization of gastric mucosa (Kuwayaina *et al.*, 1991).

Intravenous asministration of metclopramide @ 1-2 mg/kg/24 hrs was given as dopamine antagonist to check vomiting (Sawant *et al.*, 2004).

Antispasmodic drugs (dicyclomine) was administered for stabilization of GIT motility as well as to relieve acute abdominal pain of unclear etiology & suffering.

2. Antioxidant therapy

Antioxidants were used to protect gastric mucosa and epithelial membrane.

Vitamin C was used which reduces oxidative damage to the gastric mucosal layer (Aditi *et al.*, 2012) [1].

Hematocrit values show that blood urea, serum creatinine and alkaline phasphatse were higher, which were probably may be due to hypoalbumenia.

The feeding included egg albumin and curd rice as gastro-protectant acted as a supportive therapy in the present case.

It is pertinent to mention that during the course of treatment the dog remained active, through with decreased appetite, vomiting sometimes with yellowish foamy bile, temperatures remained normal and urine and stool were scanty sometimes. The dog initially experienced abdominal discomfort and pain. The dog completely recovered in two weeks.

Discussion

Chronic gastritis is a common condition in dogs results from inflammation of gastric mucosa, which causes a variety of unpleasant symptoms.

If the dog consumes something unusual, then abdominal radiograph is a must for viewing anything abnormal in the stomach such as obstruction.

Ultrasound or endoscopy can also be performed to obtain a detailed view of stomach so as to help in arriving at a definitive diagnosis. Urinalysis can be employed to detect urinary tract infection, diabetes or kidney disease.

The usual immediate treatment for severe gastritis symptoms in dogs includes re-hydration and restoring electrolytes to treat bacterial infection and anti-emetics to control vomiting.

Whether the case is severe or minor, it is usually a good idea to withhold food and only give small amounts of water with ORS for 24-48 hours then reintroduce food gradually in small

amounts.
A low fat diet like curd rice/ milk and oatmeal may be prescribed for speedy recover from chronic gastritis.

Recovery of gastritis in dogs
Most of the acute cases of gastritis will usually have a good prognosis after the dog has received adequate hydration. If there is no improvement within two days of receiving treatment, the treating veterinary doctor may reassess the situation. Vomiting, stomach discomfort will cease with the elimination of the cause.
Depending on the severity of case at the time of evaluation the dog may be given treatment until the dog becomes stable enough to return to normal health. Specific instructions may be given as to medication, if needed, and the reintroduction of food.

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References
1. Aditi A, Graham DY. Vitamin C, gastritis and gastric disease: a historical review and update. Digestive Diseases and Sciences 2012;57(10):2504-2515.
2. Amorim I, Taulescu MA, Day MJ, Catoc C, Reis CA, Carneiro F, Gastner F. Canine gastric pathology: A review. Journal of Comparative Pathology 2016;154(1):9-37.
3. Bersenas AM, Mathews KA, Allew DG, Canlon PD. Effects of ranitidine, fainotidine, pantoprazole, and omperazole on intragastric ple in dogs. American Journal of Veterinary Research 2005;66(3):425-431.
4. Bichard SJ, Sherding RG. Saunders Manual of small Animal Practice-E- Book. Elsevier Health Sciences 2005.
5. Day MJ, Biltzer T, Mansel J. World small Animal Veterinary Association Gastro intestinal Standardization group. Histopathological standards for the diagnosis of gastro intestinal inflammation in endoscopic biopsy samples from the dog and cat: A report from the World Small Veterinary Association Gastrointestinal Standardization group. J Journal of Comparative Pathology 2008;138:S1-S43.
6. Ettinger SJ, Feldman EC. Textbook of Veterinary Internal Medicine. Elsevier Saunders, St. Louis, Missouri, USA 2005.
7. Grooters AM, Johusow SE, Sherding RG. Endoscopy case of the month: Chronic vomiting and weight loss in dog. Veterinary Medicine 1994;89(3):196-199.
8. Hesta M, Ottermans C, Krammer-Lucas S, Zentole J, Hellweg P, Buyse J, Janssens GPT. The effect of vitamin C supplementation in healthy dogs on antioxidative capacity and immune parameters. Journal of Animal Physiology and Animal Nutrition 2009;93(1):26-34.
9. Kuwayama H, Matsuo Y, Eastwood GL. Effects of sucralfate, lausoprazole and cimetidine on the delayed healing by hydrocortisone sodium phosphate of chronic gastric ilcers in the rat. American Journal of Medicine 1991;91(2):S15-S19.
10. Patel PK, Patel SK, Dixit SK, Rathore RS. Gastritis and Peptic Ulcer Diseases in dogs: A Review. International Journal of Current Microbiology and Applied Sciences 2018;7(03):2475-2501.
11. Pennick DG, Nyland TG, Kerr LY, Fisher PE. Utrasonographic evaluation of gastrointestinal disease in small animals Veterinary Radiology and Ultrasound 1990;31(3):134-141.
12. Rebar AH, Macwilliams PS, Feldman B, Metzger F, Pollock R, Roche J. A guide to hematology in dogs & cats. CRC Press 2001.
13. Simpson KW. Stomach. In: Canine and Feline gastroenterology. Washabhan R.J., Day, M.J., Eds, Elsevier sauders, St. Loius 2013, 606-650.