

*Case Report***Enterotomy in a Labrador Retriever – A Case Report****V. Mahesh, G. Kamalakar* and B. N. Nagaraja**

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Rec. Date:	Sep 20, 2019 03:57
Accept Date:	Nov 23, 2019 17:20
DOI	10.5455/ijlr.20190920035701

Abstract

A young Labrador Retriever dog was presented to the clinic with signs of recurrent vomition and anorexia since five days non responsive to the medical treatment. On abdominal palpation animal was showing pain and discomfort. Survey radiograph was taken but no information of diagnostic value was revealed. Contrast radiograph was taken after barium meal revealed stasis of barium in the intestines. Emergency enterotomy was done and a gauze material along with a plastic material was removed from the jejunal loops. After a routine post-operative fluid and antibiotic therapy and regular dressing, the animal recovered uneventfully.

Key words: Enterotomy, Intestinal Obstruction, Labrador Dog, Linear Foreign Body

How to cite: Mahesh, V., Kamalakar, G., & Nagaraja, B. N. (2019). Enterotomy in a Labrador Retriever – A Case Report. International Journal of Livestock Research, 9(12), 240-243. doi: 10.5455/ijlr.20190920035701

Introduction

Intestinal obstructions are very common in dogs and cats due to their indiscriminate feeding habits. If left untreated the condition is fatal. Dogs usually ingest toys, socks, pens, stones etc. Dogs, especially playful and childish, young dogs (mean age, 3.5 to 3.7 years) may ingest a large variety of nonlinear foreign bodies (Capak *et al.*, 2005). Foreign bodies that traverse the esophagus and stomach may lodge in the smaller diameter intestine (Fossum, 2013). The intestinal obstruction can be complete or partial, proximal/ high or middle/ distal/ low or colonic. Most common site of the foreign body obstruction was recorded in the stomach (50%), followed by the jejunum (27.5%). The foreign bodies were linear in 36.2% of cases. Electrolyte and acid-base abnormalities are obvious in intestinal obstruction and most common regardless of the site or type of foreign body were hypochloremia (51.2%), metabolic alkalosis (45.2%), hypokalemia (25%) and hyponatremia (20.5%). Linear, as opposed to discrete, foreign bodies were more likely to be associated with a low serum sodium concentration (odds ratio, 0.85; 95% confidence interval, 0.75–0.95) (Boag, 2005). Intestinal obstruction is very serious condition and needs immediate surgical intervention.

Materials and Methods

A one-year old Labrador retriever dog weighing 25 kg was presented to the clinic with the history of recurrent vomitions, anorexia and dullness since 2 days. The dog was getting treated medically but not responding to the treatment. On abdominal palpation dog was showing signs of pain and discomfort. Survey radiograph revealed no information of diagnostic value. Barium swallow contrast radiograph revealed barium stasis in the intestinal loops. The decision of emergency surgical intervention was planned and executed.

Treatment and Discussion

The pet was fasted for 12 hours prior to the surgery; the electrolyte imbalance was corrected by the administration of the RL 500 ml I/V. Ceftriaxone was given @ 25 mg/kg BW. The dog was sedated using inj. atropine @ 0.04 mg/ kg BW and xylazine @ 1 mg/ kg BW and the anesthesia was maintained by using Isoflurane. The ventral abdomen was prepared aseptically, with a caudal mid ventral incision over skin and linea alba, the intestinal loops were exteriorized and the site of obstruction was identified (Fig. 1). A small incision was made on the ante mesenteric end of obstructed site and the obstructed material was retrieved. The intestinal loops and area were irrigated with normal saline. The enterotomy wound was closed using cushing's followed by lembert's pattern using 2-0 catgut. The subcutaneous tissue was sutured using catgut 1-0 and skin using polyamide no 1. The dog was kept on fluids and antibiotics for next 5 days along with daily dressing. The material found out to be long gauze cloth and (Fig. 2).



Fig. 1: Intraoperative photograph showing foreign body in the jejunal loops.



Fig. 2: Photographs showing long gauze cloth (foreign body) and plastic material.

In complete simple intestinal obstruction, accumulation of gas and fluid contributes to luminal distention proximal to the obstruction (O'Brian, 1987). Most of the gas is swallowed air (70% nitrogen, 10% to 12% oxygen, and 1% to 3% hydrogen); carbon dioxide (6% to 9%) formed as a result of bicarbonate neutralization in the intestinal lumen; and organic gases (methane [1%] and hydrogen sulfide [1% to 10%]) derived from bacterial fermentation. Gaseous luminal distention gradually increases because nitrogen is not absorbed by the intestinal mucosa (Lantz, 1981). Intussusception was reported to accompany linear foreign bodies in dogs, possibly because of increased irritation by the types of linear foreign bodies ingested by dogs or because of different reactions of the canine intestine to linear foreign bodies (Evans *et al.*, 1984). Surgical intervention is needed because of the seriousness of the condition. Experimental studies with dogs documented selective mucosal ischemia after simple intestinal obstruction, when intraluminal pressure rose above 40 mm Hg (Shikata *et al.*, 1981).

The location of the foreign body found at celiotomy was recorded in 131 (94.9%) cases. It was identified in the stomach in 69/138 cases (50%), proximal duodenum in 5/138 cases (3.6%), distal duodenum in 4/138 cases (2.9%), jejunum in 38/138 cases (27.5%), ileum in 4/138 cases (2.9%), and colon in 5/138 cases (3.6%) (Boag, 2005). In the present case the obstruction was at mid jejunal loops which was the second most common site. Other complications are acid base disturbances, peritonitis. Mortality rates after surgical removal of linear foreign bodies were higher in dogs (22%) than in cats (16%) because frequencies of perforations and peritonitis were higher in dogs (31%) than in cats (16%). (Felts *et al.*, 1984) Moreover, a significant prognostic indicator associated with and increased probability of peritonitis in dogs is the presence of fabric and plastic linear foreign bodies (Evans *et al.*, 1994).

Conclusion

Dogs have indiscriminate behaviour and eat many inanimate objects. Timely presentation of the case to the Veterinarian and aseptic surgery will result in uneventful recovery of the dogs suffering from intestinal obstruction.

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