

# A CASE OF LINEAR INTESTINAL FOREIGN BODY IN A GOLDEN RETRIEVER BITCH

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A one and a half year old Golden Retriever Bitch was presented with complaint of anorexia, persistent vomiting, and passing small quantity of bloody, pasty faeces after straining. The case was misdiagnosed as bacterial gastroenteritis by the referring veterinarian and failed to respond to antibiotic treatment. Contrast radiography of the gastrointestinal tract revealed stasis of barium in the intestines indicating an obstruction. An enterotomy was performed to relieve the obstruction caused by a piece of cloth. Necrosed segments of the intestine were resected and side to side anastomoses was performed which led to an uneventful recovery.

**Keywords:** Anastomosis, Linear Foreign Body, Enterotomy.

The term 'foreign body' refers to any non-food object located within the digestive tract of a dog or cat. If one end of the linear foreign body becomes lodged at some point in the gastrointestinal tract, such as at the base of the tongue, stomach, or in the intestine, the free end of the foreign body will trail down the remainder of the gastrointestinal tract. As the intestines attempt to move this trailing foreign body down the gastrointestinal tract for elimination, the foreign body is unable to move resulting in 'crawling up' of intestines. The most significant possible complication of a linear foreign body is intestinal perforation. The foreign object itself may not be visible on X-rays, but linear foreign bodies cause the intestines to bunch in a way that resembles a 'string of pearls' (Jasmeet *et al.*, 2017). GI obstruction often leads to intractable vomiting, the consequences of which can be life-threatening and include possible aspiration, electrolyte and acid-base disturbances, and dehydration. Depending on the underlying cause of the obstruction, the site can undergo tissue damage resulting in perforation, endotoxemia, and hypovolemic shock. Therefore, GI obstruction should be treated as an emergency, (Thomas W G Wilson).

## Case History and Observations

An 18 month old golden retriever bitch was referred to the Teaching

Veterinary Clinical Complex, Veterinary College, Hebbal, Bangalore with history of persistent vomiting, anorexia and passing of a small quantity of blood mixed faeces of pasty consistency periodically after straining which failed to respond to routine antibiotic treatment. The animal was recumbent, exhibited signs of abdominal pain on palpation and revealed a rectal temperature of 102.7°F, slightly pale and dehydrated mucus membranes and a normal heart rate and respiratory rate. A survey radiograph revealed no abnormalities and hence Barium Sulphate paste was fed and a radiograph was taken 12 hours later which revealed stasis of the contrast media in the intestines. Based on the clinical signs and contrast radiography, it was diagnosed as a case of Intestinal Obstruction and Exploratory Laparotomy was planned for its correction.

## Surgical Treatment

The animal was administered with 250 ml of ringer's lactate, ceftriaxone and sulbactam combination @ 25 mg/kg I/V and meloxicam at 0.3 mg/kg I/V. Mid-ventral abdomen was prepared aseptically for explorative laparotomy. The animal was premedicated with atropine @ 0.04mg/kg IM and xylazine @ 1mg/kg IM. 15 minutes later, the dog was induced using thiopentone sodium @ 12.5 mg/kg. With the animal in dorsal recumbency, a mid ventral incision was made to explore the abdominal cavity.

On entering the abdominal cavity, certain patches of intestine showed necrotic areas and on performing enterotomy, a piece of cloth was found entangled on itself taking the shape of a linear foreign body. The piece of cloth was removed and necrosed parts of the intestines were resected. End to end anastomoses of the intestinal loops were performed using polyglactin 910 sutures of size 2-0 in simple interrupted manner. The anastomoses was done after carefully exteriorizing the intestinal loops and taking care to avoid spillage of intestinal contents into the peritoneum. Closure of the

laparotomy and skin incision was done in a routine manner. Ceftriaxone and sulbactam combination was continued for 5 more days and the daily fluid requirement was met by providing crystalline solutions @ 60ml/kg/day. The surgical wound was cleaned and dressed daily for 7 days. 'Nothing per os' dietary regimen was advised to the owner and bland semi solid food was started from day 5 onwards. The skin sutures were removed 12 days post surgery and the dog made an uneventful recovery.



**1. Devitalized portion of the intestine before resection**



**2. End to end anastomosis of the intestine after resection**

### Discussion

Intestinal foreign bodies are some of the most common causes of intestinal obstruction in dogs and cats. Life-threatening complications caused by fluid and electrolyte imbalances, hypovolemia, and toxemia may be associated with intestinal foreign bodies. Diagnosis is made on the basis of clinical signs and results of radiography and ultrasonography and is confirmed by abdominal exploration. Most foreign bodies can be removed through one or more enterotomies as also recommended by Papazoglou, *et al.*, 2003. Enterotomy is indicated when a small intestinal foreign body has been diagnosed. Endoscopic removal of small intestinal foreign bodies is rarely successful and therefore very rarely indicated. Linear foreign bodies often require multiple enterotomies to remove them safely as was the scenario in the present case. Some cases may present with longer standing foreign bodies, linear foreign bodies, or foreign bodies that result in circumferential pressure necrosis (such as a corn cob), In these cases, there may be areas of intestine with substantial damage from pressure necrosis or excessive plication, which may require resection and anastomosis. Complications are uncommon after enterotomies and resection/anastomosis, but include dehiscence and septic peritonitis as also mentioned by Jinelle Webb, 2015.

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