

## **SURGICAL MANAGEMENT OF INTESTINAL OBSTRUCTION DUE TO MANGO KERNEL IN A LABRADOR DOG**

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**Abstract:** A young trained Labrador dog was presented with signs of anorexia, vomition, and weakness was diagnosed as complete jejunal obstruction based on contrast radiographic examination. Mid ventral laparo-enterotomy was performed and retrieved a mango kernel which was the cause of complete intestinal obstruction. With good pre and post operative treatment, the animal recovered uneventfully.

**Keywords:** Labrador dog, intestinal foreign body, mango kernel, laparo-enterotomy.

### **INTRODUCTION**

Intestinal obstruction in dogs was commonly found to be resultant of tumours, hypertrophy, gastric dilatation, volvulus, intussusception or foreign bodies (Atray et al., 2012). Higher occurrence in dogs may be attributed to their indiscriminate feeding habits (Ellison, 1990). Intestinal foreign bodies are indigestible objects that may lead to complete or partial obstruction (Radlinsky, 2007). The obstructing foreign bodies may be linear (Prasad et al., 2010) or discrete (Hayes, 2009; Raghunath et al., 2016). These cases can be diagnosed based on physical, ultrasonographic and or radiographic evaluation (Radlinsky, 2007). Commonly observed signs include vomition, anorexia, weakness, rapid debility and dehydration. Severe electrolyte imbalance is another important factor that has to be addressed to save the life of animal. Early surgical intervention rewards a fruitful recovery (Crha, 2008). In the present report, we put forth successful surgical management of complete intestinal obstruction due to mango kernel in a Labrador dog.

### **CASE HISTORY AND CLINICAL OBSERVATIONS**

A two year old Labrador retriever dog belonging to Indian Air Force, Yelahanka, Bengaluru was presented to Dept. of Veterinary Surgery & Radiology, Veterinary college, Hebbal, Bengaluru with signs of continuous vomition, anorexia, dyschezia, gradual dehydration and weakness since three days. It was very sluggish in following the trainer's

commands. Clinically it was dull, dehydrated, normothermic (101.2 °F), bradycardiac (60 beats/ min) and bradypnoeic (38 breaths/ min). A hard mass was palpable in the caudal abdomen which evinced painful reflex.

Plain radiography revealed a suspicious mass in intestines but not confirmative, hence, contrast radiography using barium meal was done which confirmed elliptical mass completely obstructing barium flow. Hematological and biochemical parameters were within normal range. An emergency exploratory laparotomy was planned and executed.

## **TREATMENT AND DISCUSSION**

The dog was immediately administered with Dexamethasone @ 1 mg/ kg, RL 500 ml, DNS 500 ml and Ceftriaxone @ 20 mg/ kg I/V. Preanaesthetized with atropine @ 0.04 mg/ kg S/C and xylazine @ 1 mg/ kg I/M. General anaesthesia induced and maintained with thiopentone sodium @ 12.5 mg/ kg I/V and ventral abdominal area was prepared aseptically. It was restrained in dorsal recumbency. An 8 cm linear incision was made over skin and linea alba and exteriorized the affected mid jejunal segment. The segment cranial to the obstruction was congested, dark red coloured and enlarged with gas and chyle. A linear incision at antemesenteric end over the obstruction was made and carefully retrieved a mango kernel of 2.5" X 1.5" size. The enterotomy wound was irrigated with NS and then sutured in single layer cushing's pattern using chromic catgut no. 2-0. Whole viscera was irrigated with NS and replaced in to abdomen. Linea alba was closed using vicryl no. 1 in simple interrupted manner followed by sub cutaneous and cutaneous sutures routinely. Post operatively administered with RL 500 ml, DNS 500 ml and metronidazole 100 ml I/V. It was not fed orally after 3 days but, till then continued the fluids BID along with ceftriaxone plus sulbactam and meloxicam. It passed soft stools on 3<sup>rd</sup> day indicating relief from obstruction.

In the present case, the dog was presented after 3 days with the signs of vomiting, anorexia, dullness, gradual weakness and dyschezia as were also reported by Prasad et al. (2010), Raghunath et al. (2016) and Muhammad et al. (2017). Plain radiograph provided rough idea but could not confirm the block except the dilated intestinal loops as it was radiolucent. Hence, contrast radiography was done which showed complete stoppage of barium meal. Muhammad et al. (2014) could diagnose based on the plain radiographs as the object was of radio opaque in nature. Intestinal obstruction was due to a mango kernel. Various authors reported obstructions due to trichobezoires (Albernaz, et al., 2017), sand particles (Muhammad et al., 2014), saree piece (Prasad et al., 2010), stones (Hayes, 2009), corn cob (Raghunath et al., 2016), etc. The intestinal part cranial to the obstruction was bright

red and mild peristalsis was persisting, hence only enterotomy was done (Albernaz et al., 2017). Crha (2008) indicated enterectomy and anastomosis in cases of necrosis of intestines. Retrieval of various objects indicate the indiscriminate feeding habits of the dogs and diseases like pica which prone the dogs to allotrophagia (Muhammad et al., 2014). But it is surprising to retrieve foreign bodies in a trained dog.

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**Fig 1:** Photograph showing barium contrast indicating complete obstruction (Arrow)



**Fig 2:** Photograph showing exteriorized intestine with obstruction (arrow) and inflamed cranial part.



**Fig 3:** Photograph showing retrieval of mango kernel through enterotomy.



**Fig 4:** Photograph showing sutured enterotomy incision.

