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## Surgical management of Ileocaeco-colic intussusception in Labrador retriever pup: A case report

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### Abstract

A three-month-old female Labrador Retriever puppy was presented to Department of Veterinary Surgery and Radiology, Veterinary Clinical Complex, Rajiv Gandhi Institute of Veterinary Education Research, Puducherry with the history of inappetence, tenesmus, haematochezia and protrusion of cylindrical mass from the anus for past one month. The animal was previously treated but recurrence noticed. Clinical examination revealed protrusion of the mass from rectum, abdominal pain and bloody mucoid diarrhoea. Ultrasonographic examination shown characteristic 'target sign' confirming the case as Intussusception. Under general anaesthesia, exploratory laparotomy was performed and the intussusception was corrected. Post operatively, antibiotics and analgesia were administered for 5 and 3 days along with fluid therapy. The skin sutures were removed on 10<sup>th</sup> post-operative day and the animal made an uneventful recovery.

**Keywords:** Celiotomy, intussusception, ileo-caeco-colic, puppy

### 1. Introduction

Intussusception or invagination of a portion of bowel into another is recognized as a common cause of bowel obstruction in small animals and more commonly in puppies as a result of increased intestinal peristalsis, canine parvo viral enteritis, worm infestation or previous abdominal surgery (Venugopalan *et al.*, 2007) [4]. Jejunojejunal and ileocolic intussusception is the most common types obstruction encountered in dogs (Fossum, 2002) [2]. However, Ileocaeco-colic intussusception is a rare entity and this present case describes about the intussusception in Labrador pup and its successful outcome.

### 2. Case History and Observation

A three-month-old female Labrador Retriever puppy was presented to Department of Veterinary Surgery and Radiology, Veterinary Clinical Complex, Rajiv Gandhi Institute of Veterinary Education Research, Puducherry with the history of inappetence, tenesmus, haematochezia and protrusion of cylindrical mass from the anus for past one month (Fig.1). The animal was previously treated but recurrence was noticed. Clinical examination revealed protrusion of the mass from rectum, abdominal pain was bloody mucoid diarrhoea. Ultrasonographic examination shown characteristic 'target sign' with multiple hyper and hypochoic concentric rings confirming the case as Intussusception (Fig.2).

### 3. Treatment and Discussion

Animal was initially stabilised with intravenous fluid therapy and Inj. Cefotaxime @50 mg/kg b.wt and general anesthesia was achieved by intravenous Inj. Diazepam @ 0.5mg/kg and Inj. Propofol @ 4mg/kg and maintenance of anaesthesia was carried out with 3% isoflurane inhalation anaesthesia. On exploratory laprotomy, diseased intestinal segment was identified and manual reduction was achieved by gently milking of intussuceptum from the intussusciens with minimal pressure and intussusception was confirmed to be Ileo-caeco-colic type (Fig.3). Doyen's clamp was applied on both end of affected segment and the mass was resected (Fig 4). End to end anastomosis was performed.

The intestinal ends and mesentery were opposed using polyglactin 910 size 2-0 in simple interrupted suture pattern (Fig 5). Intestinal viability was assessed by examining muscular peristalsis and infiltrating normal saline around the suture site to avoid intestinal perforation. Abdominal muscles were sutured using ford interlocking suture pattern using polyglactin 910 size 2-0. Post operatively, fluid therapy, antibiotics and analgesia were administered intravenously for 5 days. On 6<sup>th</sup> postoperative day, liquid diet was advised followed by semi solid diet. Wound dressing was done every three days once and sutures were removed on 10<sup>th</sup> postoperative day.

In the present case, diagnosis of intussusception was confirmed by “target sign” appearance by ultrasonography and this concurs with Patsikas *et al.*, 2003 [3]. Brown (2003) [1] reported that intestinal intussusception is mostly associated with parasitism and parvo viral enteritis which leads to hyper motility of the intestine and progress to a point at which the small intestine protrudes from the rectum. This is differentiated from the rectal prolapse by easy passage of a probe between the prolapsed segment and the rectum. In the present study, the case was presented with recurrent intestinal prolapse and enteroanastomosis was performed and the animal recovered uneventfully with no postoperative complication.



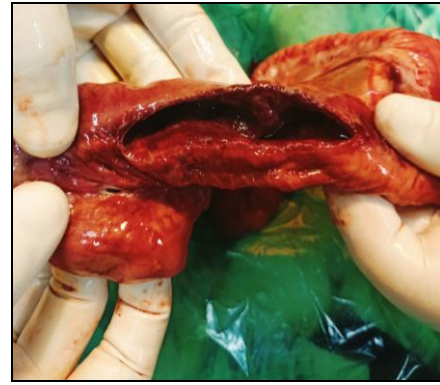
**Fig 1:** On the day of presentation - protrusion of cylindrical mass from the anus



**Fig 2:** Ultrasonographic examination revealed characteristic ‘target sign’ appearance



**Fig 3:** Diseased intestinal intussusception



**Fig 4:** Affected segment of the intestine



**Fig 5:** The intestinal ends and mesentery were opposed

#### 4. Acknowledgement

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#### 5. Conflict of interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and / or publication of this article.

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