

# ILEOCECOCOLIC INTUSSUSCEPTION IN A ROTTWEILER– DIAGNOSTIC AND THERAPEUTIC APPROACH

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A Rottweiler pup with the history of haematochezia, abdominal distension and vomiting since one week was presented. Tympanic sounds were noticed on abdominal percussion. The pup was subjected to radiography and abdominal ultrasound which confirmed the case as intussusception. The case was subjected for coeliotomy and telescoped intestines was exteriorized and the nonviable part was resected following standard surgical procedure. The diagnostic findings and clinical outcome were discussed.

**Keywords:** Contrast radiography, Ileocecolic Intussusception, Rottweiler.

Intussusception is found to be one of the common causes of intestinal obstruction in dogs (Lyndell and Bauer, 1992). Intussusception is defined as invagination or telescoping of one segment of intestine into the adjoining segment. The invaginated section of intussusception is called as intussusceptum while the enveloping portion is called intussusciens. Intestinal intussusception has varied etiologies such as intestinal parasitism, viruses, linear foreign bodies and prior abdominal surgery (Wilson and Burt, 1974). Jejuno-jejunal and ileocolic intussusceptions are found to be the common types of intussusception in dogs (Fossum *et al.*, 2002).

## Case History and Observations

A Rottweiler pup was presented to Veterinary Clinical Complex, NTR College

of Veterinary Science, Gannavaram with the symptoms of anorexia, haematochezia, vomiting and distended abdomen (fig.1) since one week. Abdominal percussion revealed tympanic sounds suggestive of gas filled intestines. Lateral abdominal radiograph revealed stacking of intestinal loops filled with gas (fig.2). The width of the last rib far exceeded the luminal diameters of both small and large intestines, which lead to suspicion of intestinal pathology. Contrast radiography with barium series confirmed the presence of intussusception (fig.3). Abdominal ultrasound disclosed the signet ring appearance (fig.4) with alternate hyperechoic and hypoechoic rings. Hemogram revealed anaemia with leucocytosis. Based on the results of imaging modalities and clinical observations the case was diagnosed as ileocecolic intussusception.



Figure 1 Distended abdomen



Figure 2 Gas filled intestines -Plain radiograph



**Figure 3 Contrast radiography – distended loops with intussusception**



**Figure 4: Abdominal ultrasound – Bull eye appearance**



**Figure 5 Intussuscepted portion**



**Figure 6 Resected part**

### **Treatment and Discussion**

The dog was stabilized with isotonic saline @ 60 ml/Kg body weight and was administered with ciprofloxacin and metronidazole to combat both the aerobic and anaerobic infections. The animal was premedicated with atropine sulphate @ 0.04 mg/Kg SC 15 minutes prior to induction of anaesthesia, which was carried out with ketamine hydrochloride @ 5 mg/Kg and midazolam @ 0.2 mg/Kg IV. After endotracheal intubation, the dog was maintained under general anesthesia with isoflurane and oxygen mixture. The mid ventral abdomen was prepared for aseptic surgery and celiotomy was performed after draping of the site. The intestines were carefully exteriorized and the site of intussusception was easily found out (fig.5). The area of the telescoped intestines was isolated after careful placement of ligatures over the mesenteric blood vessels and the non-viable part has been resected (fig.6). The remaining two stumps were carefully

anastomosed by end to end anastomosis using 3/0 polyglactin 910. A portion of mesentery was made to cover the enterotomy site for better healing. Perioperatively, normal saline soaked sponges were placed over the intestines and warm normal saline was sprinkled from time to time. The celiotomy incision was closed in a routine manner using PG 910 using standard protocols.

Postoperatively, the dog was kept on IV alimentation for three days and Lactated Ringers and Dextrose normal saline were administered to take care of the daily metabolic requirement of the nutrients. Antibiotic therapy was continued with Ciprofloxacin and metronidazole up to fourth postoperative day and later it was kept on cefotaxime @ 50 mg/Kg body weight for the following six days. The dog was made to resume oral feeding with liquids on day three postoperatively. A dose of Pantoprazole and Domperidone orally was administered to prevent signs of retching. The dog resumed normal appetite gradually after 6 days.

## Conclusions

In intestinal intussusception the clinical signs are related to partial or complete obstruction. In case of severe delay or if left untreated, will lead to interference with venous drainage and subsequent ischaemia and necrosis of bowel. Hence it was concluded that diagnostic imaging techniques were highly useful for early diagnosis of intussusception and operative procedures resulted in successful outcome in the present case.

## References

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