



Intestinal Obstruction by Coconut Kernel in a German Shepherd Dog – A Case Report

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Abstract

A 3.5 years old German Shepherd dog was brought to the clinic with the complaint of not passing stools for 5 days and was suspected for foreign material ingestion. On physical examination, the pet was dehydrated with a distended abdomen. On abdominal palpation, a hard mass was palpable in the cranial abdominal region. A survey radiograph of the lateral abdomen revealed the presence of radio dense material in the cranial abdomen. Twelve hours post-barium radiograph showed narrowed intestinal lumen with gas-filled intestinal loops and it was suspected for intestinal obstruction. Hence, decided for emergency exploratory laparotomy. On exploration, a coconut kernel was obstructing the intestinal lumen, which was retrieved by enterotomy. Seven days post-surgery, the pet recovered uneventfully.

Keywords: Coconut Kernel, Exploratory Laparotomy, Enterotomy, German Shepherd

Introduction

Gastrointestinal foreign bodies were the most common cause that interferes with the passage of intestinal contents through the GIT, which may result in blockage of the bowel. Various other causes of intestinal obstruction reported to be were resultant of intussusception, adhesions following abdominal surgery, tumors and strictures, navel and groin hernias that trap loops of bowel in the hernia sac and heavy infestations of roundworms (Rajoria *et al.*, 2015). The bowel obstructing foreign bodies may be linear (Makinde *et al.*, 2018) or discrete (Raghunath *et al.*, 2016; Kamalakar *et al.*, 2018). The size of the foreign body determines whether obstruction is partial or complete. The clinical picture with intestinal obstruction includes anorexia, dehydration, depression, abdominal pain or discomfort, and vomiting (Capak *et al.*, 2001). The present case report deals with successful surgical management of intestinal obstruction due to coconut kernel in a German Shepherd dog.

Case History and Observation

A 3.5 years old German Shepherd dog was brought to the Veterinary College Hospital, Bangalore with a complaint of not passing stools for 5 days and was suspected for foreign material ingestion. On physical examination, the pet was dehydrated, weak with a distended abdomen. On abdominal palpation, a hard mass was palpable in the cranial abdominal region. Haemato-biochemical parameters were within normal physiological limits. A survey radiograph of the lateral abdomen showed the presence of radio dense material in the cranial abdomen (Fig. 1). On contrast radiograph 12 hours post-barium revealed, narrowed intestinal lumen with gas-filled intestinal loops (Fig. 2) and it was suspected for intestinal obstruction and decided for explorative laparotomy.

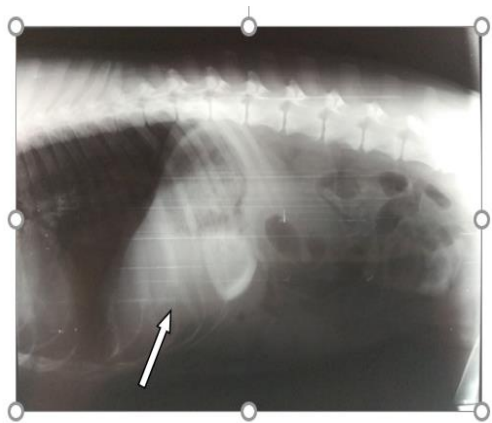


Figure 1: Radio dense mass in the cranial abdomen

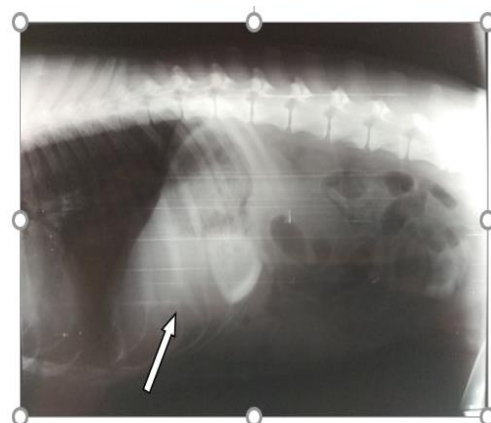


Figure 2: Contrast radiograph 12 hours post-barium showing narrowed intestinal lumen, with gas filled intestinal loops

Treatment and Discussion

After stabilizing with fluid therapy, pet was anaesthetized with xylazine @ 1 mg/kg BW I/M and thiopentone sodium 2.5% @ 12.5 mg/kg BW I/V till the effect. The anesthesia was maintenance by 2% isoflurane. The animal was placed in dorsal recumbency and surgical site (ventral abdomen) prepared aseptically. A linear incision was made over the skin, subcutis bluntly separated, incised linea alba & peritoneum and entered the abdominal cavity. The obstructed intestinal loop was exteriorized and the actual obstruction was found at jejunum (Fig. 3). A full-length linear incision was made on the anti-mesenteric border and the entrapped coconut kernel was removed (Fig. 4). The enterotomy wound was irrigated with normal saline and closed by simple interrupted sutures with knots inside lumen using chromic catgut No 2-0. The laparotomy wound was closed as per the standard surgical protocol. The wound was dressed and bandaged with Dinoplast®. Postoperatively, the food and water were withheld for 3 days. Inj. Ceftriaxone @ 20 mg/kg BW and fluid therapy was administered for 5 days. Feeding started from 4th postoperative day onwards, slowly from liquid to solid diet. Alternative days wound dressing was performed. Sutures were removed after 10 days and pet recovered without any complications (Fig. 5).

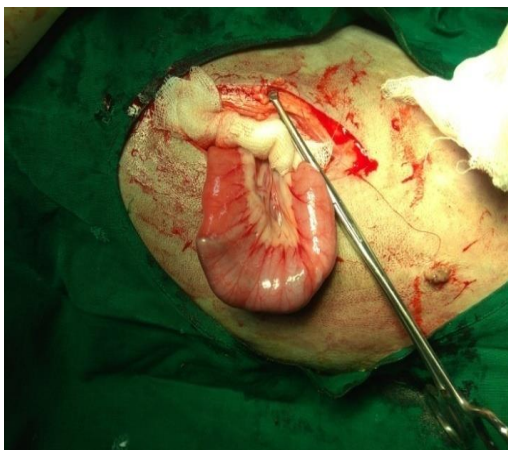


Figure 3: An obstructed intestinal loop at the level of jejunum



Figure 4: Coconut kernel retrieved from the obstruction site



Fig. 5: Dog recovered on 10th post-operative day

Indiscriminate eating habits of dogs will predispose them to bowel obstruction (Ellision, 1990). Foreign materials may get obstructed at both normal and pathological points of narrowing (Tams and Seim, 2013). Foreign bodies can cause obstruction at all points along the GIT, with the jejunum being the most common site (Hayes, 2009). A similar finding was recorded in the present case, in which the obstruction occurred at jejunum. Intestinal obstruction by Peebles (Kamalakar *et al.*, 2018), maize corn (Raghunath *et al.*, 2016), saree piece (Prasad *et al.*, 2010), plastic bottle cap (Makinde *et al.*, 2018) were recorded. In our case, obstruction was due to the coconut kernel. Foreign bodies in the digestive tract apart from partial or complete obstruction lead to severe inflammation, mucosal laceration and pressure necrosis (Ettinger, 1989). In the present case, mild inflammation at the impacted site was noticed. Life-threatening complications may result because of fluid, acid-base, and electrolyte imbalances, hypovolemia, and toxemia (Guilford and Strombeck, 1996). In our case, the pet recovered without any complications.

Conclusion

A 3.5 years old German Shepherd dog with intestinal obstruction by coconut kernel was successfully managed by enterotomy. With good pre- and post- operative care, the pet recovered uneventfully.

Conflict of Interests

There is no conflict of interest.

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