

SURGICAL MANAGEMENT OF INTESTINAL OBSTRUCTION IN A PUP- CASE REPORT

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A 4 months old male Dachshund pup presented with a complaint of continuous vomiting and with a history of foreign body ingestion. Clinical and radiological examination revealed a foreign body in the abdomen and it was confirmed by barium contrast study. The condition was treated by enterotomy and a bottle cap was recovered. Animal recovered uneventfully without any postoperative complications.

Keywords: Jejunum, Intestinal Foreign body, Enterotomy, Dog.

Intestinal obstruction in dogs has been considered to be largely caused by foreign bodies. The consequence of foreign body ingestion depends on the size and shape of the object (Tyrell and Beck 2006). Foreign body obstruction was classified on the basis of degree of obstruction, location of the obstruction and pathophysiological alterations (Papazoglou *et. al.*, 2003). In the present paper diagnosis and surgical management of complete intestinal obstruction in a Dachshund pup is discussed.

Case history and Observations

A four months old male Dachshund pup weighing 4 Kg was presented to the department of Veterinary Surgery and Radiology NTR College of Veterinary Science, Gannavaram, with a complaint of continuous vomiting, with a history of foreign

body ingestion three days prior to presentation. Palpation of abdomen revealed a hard mass in the posterior abdomen. The presurgical hematological findings suggested hemoconcentration and low level of chloride in serum. Lateral radiograph of abdomen showed gas filled intestinal loops (Fig.1). For confirmatory diagnosis barium suspension was given at the dose rate of 12 mL/Kg body weight and radiographs were taken at 0 min, 15 min, 45 min. and 90 min. intervals. The contrast material had passed up to small intestine and tapered to form a point at the point of obstruction, indicating a foreign body (Fig. 2). It was decided to remove the foreign body by enterotomy and the animal was stabilized with intravenous fluids and antibiotics. Surgery was performed on the day of its presentation.



Fig. 1 Skiagram showing gas filled intestinal loops.



Fig. 2 Skiagram showing obstruction to the contrast agent in the small intestine

Surgical Treatment

Preoperatively the animal was stabilized with inj. RL @ 20mL/Kg body weight i.v. and inj. cefotaxime @ 22 mg/Kg body weight i.v. and preemptive analgesia was achieved with tramadol hydrochloride @ 2mg/Kg body weight. The animal was prepared for aseptic surgery. The animal was prepared for aseptic surgery. The animal was premedicated with atropine sulphate @ 0.04 mg/kg body weight subcutaneously 30 minutes before surgery.

Anaesthesia was induced by administering the Ketamine HCl @ 10mg/Kg b.wt. and Midazolam @ 0.2mg/Kg b. wt. intravenously. Anaesthesia was maintained by 2% Isoflurane. The animal was positioned in dorsal recumbency. A mid ventral linear incision was made on the skin.

A 6 cm long mid ventral linear incision starting from umbilicus to pubis was made on the skin. Linea alba incised in the same line. The abdomen was explored and the affected intestinal segment was exteriorized and isolated by packing with moistened laparotomy sponges. No gross changes were noticed in the affected intestinal loop. Enterotomy was performed at the antimesenteric border distal to the foreign body. Through the enterotomy incision, a plastic bottle cap was retrieved. The enterotomy incision was closed with a single layer of Cushing pattern by using 3-0 PGA with swaged-on needle. The enterotomy site was checked for leakage by gentle milking of the contents through the enterotomy site. Abdomen was lavaged with warm sterile saline. The celiotomy incision was closed by continuous lock stitching using no. 1 PGA and subcutis was closed with 1-0 PGA in continuous pattern. The cutaneous incision was sutured using nylon in cross mattress pattern. The cutaneous incision was sutured using nylon in cross mattress pattern. Postoperatively I/V fluid therapy with RL was continued for 3 days and the pup was administered inj. cefotaxime @ 22 mg/Kg body weight I/M. for 5 days and inj. meloxicam @ 0.2 mg/Kg body weight S/C

for 2 days. Rice gruel was offered from 3rd postoperative day and gradually shifted to solid diet by 5th day. The skin sutures were removed on 8th postoperative day.

Results and Discussion

The animal made an uneventful recovery. The oropharyngeal opening is larger than any other orifice in the gastrointestinal tract. Foreign bodies that traverse the esophagus and stomach might get lodged in the small intestine due to smaller diameter as also mentioned by Aronson *et al.*, 2000. Common intestinal foreign bodies that produce obstruction include bones, balls, toys, rocks, corncobs, cloth, metal objects (e.g., fishhooks, needles), peach pits, acorns, pecans, hairballs, tampons, and linear objects (i.e., string, thread, fabric, pantyhose, plastic, cassette tape, ribbon or shoe socks as also reported by Hayes, 2009 and Hari Krishna and Chandrasekhar, 2018. Some foreign bodies continue to move slowly through the intestine, whereas others become lodged in an intestinal segment, causing complete or partial obstruction. In the present study, the foreign body was lodged in the small intestine due to its smaller diameter. Delay in presentation of intestinal foreign body obstruction cases decreases the success rate as also narrated by Hari Krishna and Chandrasekhar, 2018. No complications were recorded in the present study.

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