

SURGICAL MANAGEMENT OF GASTRO-INTESTINAL OBSTRUCTION CAUSED BY A WIRE MESH IN A DOG

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Dogs have been known to swallow bones, toys, sticks, stones, pins, needles, wood splinters, cloth, rubber balls, rawhide, leather, string, peach pits, and other objects. Intestinal obstructions are common in dogs and it can occur in any part of the intestinal tract, but most often in small intestine due to its narrow lumen (Patsikas, 2004). Ingestion of various foreign bodies like socks, stones, washing brush, toys, bone pieces, plastic ball leading to intestinal obstruction were reported in dogs (Ledecky *et al.*, 2001). Survey radiograph is useful in detecting radioopaque materials and contrast radiography is necessary in case of radiolucent foreign bodies. Other causes of intestinal obstruction are tumors strictures and adhesions following abdominal surgery, and navel and groin hernias that trap loops of bowel in the hernia sac. In young puppies, heavy infestations of roundworms may obstruct the bowel. This report describes a case of successful surgical management of intestinal obstruction caused by a wire mesh in a two year old non-descriptive dog.

Case History and Observations

A two year old Male non-descriptive dog was presented to the Veterinary College Hospital, Bangalore with a history of anorexia, vomiting and dyschezia since one week and not responding to the medical treatment. On abdominal palpation a soft mass was felt at cranial abdomen with severe pain and intestinal

loops appeared distended. Survey radiography of lateral abdomen did not reveal any abnormality. Four barium contrast radiograph of lateral abdomen revealed stasis of barium in the stomach and jejunal loops confirmed intestinal obstruction (Fig.1). Therefore it was decided for exploratory laparotomy.



Fig. 1 - Radiograph showing pooling of barium and delayed gastric emptying time.

Treatment and discussion

Dog was prepared for aseptic surgery and premedicated with Atropine sulphate @ 0.04 mg/kg body weight subcutaneously, pre-emptive analgesia @ 1 mg/kg body weight intramuscularly and Triflupromazine hydrochloride @ 1 mg/kg body weight intravenously. After 10 minutes, anesthesia was induced and maintained by isoflurane and oxygen mixture. Celiotomy was performed to explore the abdomen then intestinal loops were examined which revealed coiled jejunal loops and following the intestinal loops cranially, towards the stomach revealed foreign body in it. Therefore gastrotomy was performed and

foreign body was removed (Fig. 2), it revealed a mesh but we failed to remove completely as a linear foreign body was continued caudally. Therefore enterotomy was performed at ilial region to remove remaining foreign body (Fig. 3). Gastrotomy wound was closed by lamberts followed by cushings pattern. The intestine wound closed by simple interrupted pattern with knots inside the lumen. Then the organs placed back into the abdomen. The abdomen was flushed with warm normal saline and closed by using No.1 polyglactin 910, subcutaneous and skin were opposed in routine manner.



Fig. 2 – Removal of wire mesh by gastrotomy.



Fig. 3 – Wire mesh (Foreign body).

Post-operatively, ceftriaxone (20mg/kg) was given for 7 days intramuscularly BID. The animal was maintained on parenteral alimentation with ringers lactate 300 ml and Dextrose 5%, 300 ml daily twice along with Metronidazole 100 ml intravenous for three days. Animal was allowed for liquid diet on 4th post-operative day and solids on 7th post-operative day. Skin sutures were removed on 10th post-operative day and animal recovered uneventfully. Ettinger and Feldman (2000) reported foreign bodies in the intestine cause partial or complete obstruction and also lead to severe inflammation, mucosal laceration and pressure necrosis but in present case the foreign body was causing complete obstruction of intestine with no other damage. Singh *et al.*, (2011) reported pathophysiological alterations in acute abdomen due to intestinal obstructions in dogs and stated significant increase in total protein, albumin, glucose, creatinine, ALT and AST with significant

decrease in serum sodium, potassium and calcium.

Summary

A case of intestinal obstruction caused by wire mesh in a dog and its successful management is reported.

References

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