SURGICAL MANAGEMENT OF GASTRO-INTESTINAL FOREIGN BODY IN DOGS

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Four cases of different age and breed of dogs were presented to Veterinary College Hospital, Hassan, with a history of inappetence, dullness, frequent vomiting and pain on palpation of abdomen. Radiographic examination revealed radio-opaque round foreign body in stomach in two cases, intestines in another two cases, suggestive of Gastro-intestinal (GI) obstruction due to foreign body. Gastrotomy and Enterotomy was performed under general anesthesia to remove foreign body respectively from Stomach and Intestine. Post-operatively administration of antibiotics, analgesics and regular dressing of wound was done and the dogs were recovered uneventfully. 

**Keywords:** Gastrotomy, Enterotomy, Foreign body, Obstruction.

Indiscriminate feeding habit predisposes the dogs to foreign body syndrome. The oropharyngeal opening is larger than any other orifice in the Gastro-Intestinal (GI) tract. Foreign bodies that traverse the esophagus and stomach may lodge in the intestine being of smaller diameter (Fossum \textit{et al.}, 2019). Foreign body obstruction will become emergency when it blocked at smaller diameter GI tract (Nijin, 2020). The clinical course and signs are more severe in animals with complete intraluminal obstruction, particularly a “bigger” obstruction, than in those with a smaller obstruction, (Fossum \textit{et al.}, 2019). The present case reports describe the successful surgical management of GI foreign bodies in four dogs.

Case history and Observations

Four cases of dogs, one of them was Shih tzu (Case no.1) and one was Non-descriptive (Case no.4) aged around three and five respectively; another one was of Labrador (Case no.2) and one was of Dachshund (Case no..3) aged around two and six years respectively. All these cases were presented to Veterinary College Hospital, Hassan, with a history of inappetence, dull and frequent vomition; not passed feces in Case no.2 and 3 after initial diarrhea, pain on abdomen palpation. Clinical examination and radiographic examination revealed radio-opaque round foreign bodies in two cases (figure 1) in the atstomach and in two cases in the intestines (figure 2). Surgical procedure was planned to remove the foreign bodies from stomach and intestine. Routine clinical examination, hematological and biochemical profile was estimated.

\textbf{Figure1: A. Radiograph revealing gastric foreign body, B. Removing foreign body through Gastrotomy, C. Foreign body after removal}

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Materials and Methods
The dogs were premedicated with Atropine at 0.04mg/kg S/C, Midazolam @ 0.2 mg/kg I/V Anesthesia was induced using Thiopentone (1/3rd of total dose) @ 12.5 mg/kg I/V and maintained with Isoflurane. Under dorsal recumbency surgical site was prepared aseptically with Povidone iodine solution. Laparotomy was performed by midline incision, obstructed part either stomach or small intestine- were exteriorized and isolated from the other viscera by moistened sponges and bowell intestinal clam applied on either side of affected part of intestine in enterotomy. Gastrotomy performed on midway between greater curvature and lesser curvature of stomach where as enterotomy performed caudal to the obstructed site on the anti-mesenteric border of intestine and the foreign bodies were removed. Gastro-Intestinal viability assessed after decompression of the distended loops and removal of the foreign bodies. Gastrotomy wounds were closed with two layer technique with inversion of seromuscular layer using polyglactin-910 no. 3-0 sutures and enterotomy wound were closed by inversion suture using polyglactin-910 no 3-0 sutures. Patency of sutured gastro-intestine checked by milking of gastro-intestine, intestine repositioned into abdomen and flushed with normal saline, laparotomy wound was closed with polyglycolic 910 no 1.0 using simple interrupted suturing pattern followed by subcuticular suture in simple continuous. Skin was apposed with polyamid no.1-0 in cross mattress pattern.

Post – operatively ceftriaxone @ 25 mg/kg intravenous for 5 days and Meloxicam@ 0.5 mg/ kg.intramuscularly for3 days, Dextrose normal saline, ringer’s lactate, metronidazole for3 days and advised to withheld food and water for 3days, after 3 days start with liquid diet for 10 days.

Results and Discussion
All cases were recovered without any complication, skin suture removed after 12 days. Foreign objects recovered in gastrotomy were one long linear bone, sharp multiple bone fragments and in inenterotomy objects were stone and corn cob, all were removed as described above. Vomiting is almost always the hallmark signs of gastric foreign bodies. If the object is large, they may completely obstruct the outflow and the vomiting may be too frequent. Vomiting may be intermittent, if the foreign body is small and animals may continue to eat and remain active as also reported by Fossum et al., 2019, whereas in present four cases also vomiting was reported. In these cases we notice initial diarrhea followed by absence of feces as also mentioned by Papazoglou et al., 2003. We used inversion suture for enterotomy wound as also recommended by Makinde et al., 2018.

References
Makinde, O.A., Adebayo, O.O., Adeniyi,

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