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# Radiographic diagnosis and medicinal management of foreign body in the gastrointestinal tract of Dog

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**Abstract**

A 4-month-old Labrador dog was presented with the history of swallowing some inanimate objects and consequently suffering from anorexia, vomiting and voiding scanty faeces. Clinical and radiographic examination confirmed the presence of non-linear small irregular radio-opaque foreign bodies in the gastrointestinal tract of the dog. Therapeutic management of the case is discussed.

**Keywords:** Dog, foreign body, gastrointestinaltract, medicinal management.

Gastrointestinal foreign body is anything that cannot be digested or is slowly digested. Common intestinal foreign bodies include bones, balls, toys, rocks, cloth, metal objects and linear objects (Fossum, 2007). Foreign bodies that pass the oesophagus and stomach may lodge in the smaller diameter intestine and causes partial or complete obstruction. The presence of foreign bodies in the gastrointestinal tract is one of the common life-threatening ailments in dogs. The puppies by nature love to play and chew inanimate objects and may accidentally or intentionally swallow inedible materials (Rani *et al.*, 2010). Smaller foreign bodies can pass the gastrointestinal tract without causing obstruction when managed therapeutically. Larger foreign bodies may cause obstruction and lead to severe gastrointestinal complications (Kathirvel *et al.*, 2012). Complete, proximal and strangulating obstructions are more severe and acute than partial, distal and simple obstructions respectively (Papazoglou *et al.*, 2003).

## Case History and Observations

A 4-month-old Labrador dog presented at TVCC, DUVASU Mathura with the history of ingestion of gravel present on the floor, occasional vomiting,lethargy, reduced frequency of defecation and intermittent anorexia.

Clinical examination revealed the dog was dull and dehydrated with normal body temperature, heart rate and respiratory rate and elevated pain on abdominal palpation. Packed Cell Volume and total proteins were slightly elevated. A slight increase in leucocytes, blood urea nitrogen, creatinine and alkaline phosphatase was recorded. Dorsal and lateral radiographs confirmed the presence of radio-opaque foreign bodies in the gastrointestinal tract of the dog which was about 2.4 cm in length and 1.9 cm in width (Fig 1, 2).

The dog was treated immediately to avoid shock and further gastrointestinal complications. Radiography did not indicate peritonitis. A non-surgical management protocol was planned to manage the case. A combination of Ringer's Lactate and Dextrose Normal Saline was administered @ 10 ml/Kg/hour intravenously. To counter dehydration and electrolyte imbalance. Pantoprazole @1 mg/Kg BW intravenously and Cefotaxime were given @ 50 mg/kg BWintravenously to address acidity and to prevent secondary infection.Liquid paraffin @ 1ml/Kg was administered orally. Metoclopramide was administered @ 0.2 mg/Kg BW intravenously. For nutritional supplement, Vitamin B complex was given. Foreign body advancement was continuously monitored by radiography and the dog was clinically evaluated on regular basis. The radiographs were taken after 36 hours since ingestion revealed the absence of foreign bodies and owner-reported foreign bodies passed out through defecation (Fig 3, 4). Treatment was continued for 5 days and the animal recovers uneventfully and was active and responsive at the time of discharge from the hospital.

## Discussion

The differential diagnosis includes intussusception, acute gastritis, acute pancreatitis, peritonitis and parvo-viral enteritis in young pups. The small rounded non-linear foreign bodies can be removed 30 minutes after the dog has been fed a regular meal by inducing vomiting (Slatter, 1993). Radiographic

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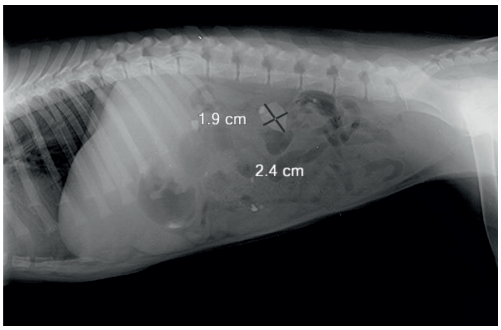


**Fig. 1:** Non-linear radio-opaque foreign body and Small irregular radio-opaque densities (Lateral view)


**Fig. 2:** Ventrodorsal view

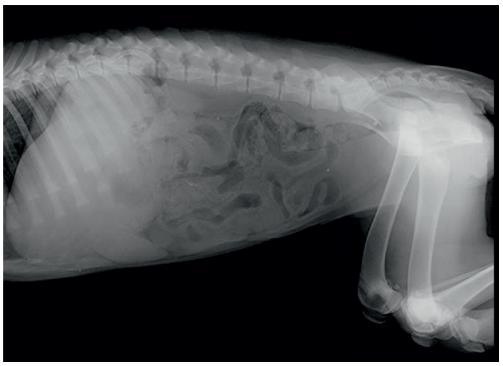

**Fig. 3:** Radiograph after 36 hours revealed the absence of foreign bodies (Lateral view)

**Fig. 4:** Ventrodorsal view

examination is the best diagnostic aid for definitive diagnosis and identification of the location of the foreign body (Chiang and Chou, 2005). Radiolucent intestinal foreign bodies may be identified based on the radiographic signs, which include distended intestinal loops that lie layers parallel to each other and unequal gas-fluid interfaces seen in lateral recumbency(Papazoglou *et al.*, 2003). Failure of the foreign body to move within 8 hours since ingestion or failure of the foreign body to pass within 36 hours since swallowing is the indication for surgical management.

## References

Chiang, K.H and Chou, A.S. 2005. Imaging of a Gastrointestinal Foreign Body in a Feline -A Case Report. *Tzu. Chi. Med. J.* **17:**187-89.

Cornell, K. and Koenig, A. 2015.Gastrointestinal foreign bodies. *Sm. Anim. Surg. Emerg.,* **33:** 42.

Ettinger, S.J. and Feldman, E.C. 2000. Textbook of Veterinary Internal Medicine. Diseases of the Dog and Cat.5th Edn. Vol.2. W.B. Saunders Company, Philadelphia. pp 1154-82.

Fossum, T.W. 2007. Small Animal Surgery, Mosby Inc., St. Louis, Missouri.

Kathirvel, S., Thangadurai, R., Dharmaceelan, S., Jayakumar, K.,Senthilkumar, S., Premkumar, C. and Rajendran, N. 2013. Therapeutic management of metallic foreign body in the gastrointestinal tract of dogs. *Indian Vet. J,* **90(8):** 80-81.

Papazoglou, L.G., Patsikas, M.N. and Rallis, T. 2003. Intestinal foreign bodies in dogs and cats. *Compendium on Continuing Education for the Practising Veterinarian-North American Edition*, **25(11):** 830-845.

Rani, R.U., Vairavasamy, K. and Muruganandan, B. 2010. Surgical management of gastric foreign bodies in pups. *Intas Polivet*, **11(2):** 302-303.

Tripathi, A.K., Soodan, J.S. and Kushwaha, R.B. 2010. Gastric foreign body syndrome in a golden retriever dog. *Intas Polivet* **11(2):** 305-306.

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