

Case Study

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## Surgical Retrieval of Intestinal Metallic Foreign Body in a Pup

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### ABSTRACT

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An eight month old male pomeranian dog was presented at TVCC, Nagpur Veterinary College, Nagpur with a history of frequent vomiting, inappetence and depression since 5 hours. Anamnesis revealed the owners had seen the dog ingesting a thread attached to a needle. On clinical examination the dog was dull, dehydrated with normal body temperature, heart rate and respiratory rate. Lateral abdominal radiograph revealed a radio opaque, linear, sharp, metallic foreign body like a sewing needle in the caudal abdomen. On the basis of history, clinical signs and radiographic findings, the condition was diagnosed as intestinal foreign body. Surgical correction was planned to remove the foreign body. The dog was premedicated with atropine sulphate @ 0.04 mg/kg body weight subcutaneously and xylazine hydrochloride @ 1 mg/kg body weight intramuscularly. General anaesthesia was induced by ketamine hydrochloride @ 10 mg/kg body weight and Diazepam @ 1 mg/kg body weight intravenously and enterotomy was conducted and a sewing needle with thread was removed. The jejunum was sutured with chromic cat gut 3-0 in continuous cushioning followed by lebert manner and abdomen was closed in routine manner. Post-operatively administration of antibiotics, analgesics and regular dressing of wound was carried out and the dog recovered uneventfully.

### Introduction

Intestinal foreign body in canines is one of the common life threatening ailments. The incidence is quite high in puppies because by nature they love to chew and play with unnatural food things and may intentionally or accidentally swallow these substances (Uma Rani *et al.*, 2010). These materials are easily swallowed, lodged in the stomach and may cause ulceration, starvation, dehydration and eventual death (Chiang and Chou, 2005). The most

frequently found gastro intestinal foreign bodies were bones, corn-cobs, stones, fruit pits, food packaging materials, children's toys, bottle caps, fish hooks and sewing needles (Senapati *et al.*, 1997; Sreenu and Kumar, 2006). The esophageal and gastric regions were the most common location of sewing needle followed by oropharynx and small and large intestine (Chap *et al.*, 2014). In the present article, successful surgical removal of a linear, sharp and metallic intestinal foreign body in a pomeranian puppy is reported.

## Clinical findings and Diagnosis

An eight month old male pomeranian dog weighing 7.35 kg body weight was presented at the Teaching Veterinary Clinical Complex, Nagpur Veterinary College, Nagpur with a history of frequent vomiting, inappetance and depression since morning. Anamnesis revealed the owners had seen the dog ingesting a thread along with a needle. On clinical examination the dog was dull, dehydrated with normal body temperature, heart rate and respiratory rate. Lateral abdominal radiograph revealed a radio opaque, linear, sharp, metallic foreign body like a sewing needle in the caudal abdomen. On the basis of history, clinical signs and radiographic findings, it was diagnosed as intestinal foreign body and surgical removal was planned.

## Surgical Procedure

The dog was premedicated with atropine sulphate @ 0.04 mg/kg body weight subcutaneously and xylazine hydrochloride @ 1 mg/kg body weight intramuscularly. The anaesthesia was given by using ketamine hydrochloride @ 10 mg/kg body weight and Diazepam @ 1 mg/kg body weight intravenously (Nath *et al.*, 2015). The dog was restrained in supine position and the ventral abdomen was shaved, cleaned and prepared aseptically for surgery. The abdomen was approached by midline incision. Intestinal loops were exteriorized. A sharp object was palpated (thread and needle) at the jejunum. Intestine was incised and a thread was found to be attached in the eye of the needle. Incision was increased slightly for gentle removal of the entire needle and thread. The incision was closed using 3-0 catgut by crushing followed by Lembert's suturing pattern. All the loops were repositioned in the abdominal cavity. Peritoneum and muscles were sutured using vicryl no. 2 by simple interrupted pattern. The skin was closed by nylon in a routine manner. Post operatively, the dog was treated with inj. of Ceftriaxone @ 22 mg/ kg bodyweight I.V. twice daily for 5 days and inj. Meloxicam @ 0.3 mg/kg bodyweight I.M once daily. The food and water

were withheld for 5 days and during this period supportive fluid therapy RL and DNS was given twice daily for 5 days. Multivitamin was added to the fluids for 3 days. Water was allowed after 5<sup>th</sup> day mixed with glucose and milk was allowed from 6<sup>th</sup> day onwards. On 13<sup>th</sup> post-operative day skin sutures were removed and the dog recovered uneventfully.

## Results and Discussion

Sharp intestinal foreign bodies pose a grave threat since they cause constant damage to it's internal lining. The most common clinical signs are persistent vomiting, partial to complete anorexia, weight loss and lethargy. The presence of gastrointestinal foreign body is higher in pups due to their voracious and indiscriminate feeding habits (Fossum, 2007). Abdominal palpation of sharp foreign bodies can be detrimental to the patient. Metallic gastric foreign bodies can be diagnosed by plain radiography, but positive or double contrast studies are performed to detect non-metallic foreign bodies (Uma Rani *et al.*, 2010). The timely diagnosis of intestinal foreign body by radiographic examination, surgical intervention for retrieval of the sewing needle and post operative management helped in complete recovery of pup in the present report.

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