

ASYMPTOMATIC GASTRIC FOREIGN BODY IN A PUP AND ITS SURGICAL MANAGEMENT

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Introduction

Pups are always at higher risk for the ingestion of foreign bodies because of their indiscriminate feeding habits (Fossum, 2007). A variety of foreign bodies have been recovered from dogs like stones, bones, clothes, feeding bottle nipple, plastic toys, metallic objects, coins etc. however, a majority of them pass out the gastrointestinal tract without producing the clinically overt signs of obstruction. The foreign body can be lodged anywhere in the gastrointestinal tract starting from oral cavity, esophagus, stomach or even in the lower gastrointestinal tract (Pillai *et al.*, 2006; Singh and Nath, 2009). Gastric foreign bodies have been reported to cause vomiting as a result of outflow obstruction, distension and mucosal irritation. The clinical signs may vary from discomfort, inappetance, vomiting, lethargy and abdominal pain depending upon the type, location, degree of obstruction and time elapsed since ingestion of foreign body (Tams, 2001). However most of the animals continue to drink small amounts of water and as the duration of obstruction increases, the frequency of vomiting is decreased (Strombeck, 1979). However, in some instances, the animal fails to show clinical signs of foreign body syndrome and diagnosis can be made as an incidental finding on radiograph (Slatter, 2003). The present communication deals with successful surgical management of asymptomatic foreign body in a pup and its successful surgical management.

Case History and Clinical Findings

A 3 months old, feamle mongrel puppy was presented to the Referral Veterinary Polyclinic, IVRI, Izatnagar for treatment of otitis externa in right ear since 4 days. The pup was fed with commercially available pet food and the feed intake as well as faecal and urine output was normal. The clinical examination of

the patient revealed normal rectal temperature (101.6°F), heart rate (160 beats per min) and respiratory rate (22 breaths per min). However, during manual restraint for cleaning of the affected ear, when the hand of assistant was placed over the abdominal area, the animal made a grunting sound and revealed signs of excessive restlessness. After cleaning of the affected ear, the pup stood up immediately but assumed an arched back posture which gave indication of acute pain in the abdominal region.

Based on clinical signs of the patient and to rule out the chances of any foreign body, a lateral thoraco-abdominal radiograph was performed which revealed the presence of a radioopaque linear foreign body in the stomach region (Fig. 1). The hematological profile revealed all parameters to be within the physiological limits. Hence, it was planned to retrieve the offending foreign body via gastrotomy on emergency basis.

Treatment

Preoperative administration of 200 ml of 5% Dextrose Normal Saline IV, broad spectrum antibiotics ceftriaxone and tazobactam combination @ 20 mg/ kg IV and analgesic pentazocine @ 1 mg/ kg IV along with vitamin B complex (1 ml IM) as supportive therapy was initiated. Afterwards, aseptic preparation of the mid-ventral abdominal region from umbilicus to pubis was done for gastrotomy procedure.

The animal was premedicated with atropine sulphate @ 0.04 mg/kg body wt. SC followed 10 minutes later by xylazine hydrochloride @ 1 mg/ kg body wt. IM and subsequently ketamine hydrochloride @ 10 mg/kg body wt. IM. The animal was restrained in dorsal recumbency and an upper mid ventral incision just posterior to the xiphoid region was given for standard laparotomy. The stomach was carefully exteriorised through the incision site

and physical palpation was carried out to locate the site of lodgement of the foreign body. Moistened cotton gauze was kept around the proposed incision site followed by stab incision over the sharp edge of foreign body. Then the tip of needle was grasped with the help of an

artery forceps and removed carefully to avoid tearing of stomach wall while pulling out the thread attached to the needle. The gastrotomy incision was sutured by Lembert's pattern using catgut no. 2-0 followed by closure of laparotomy incision in a routine manner.



Fig. 1: Radiograph showing linear foreign body in thread the stomach region



Fig. 2: Removal of sewing needle along with thread through gastrotomy incision

Postoperatively antibiotic therapy using ceftriaxone plus tazobactam was continued for 5 days while 5% DNS solution (500ml daily in divided doses) along with meloxicam @ 0.05mg/kg IM was administered for 3 days. The incision site was dressed twice daily with 5% povidone iodine solution for 7 days. Strict dietary rest was advised for 5 days and feeding of soft food was started from 6th day onwards followed by gradual changing the diet to solid food over a period of 14 days.

Results and Discussion

A sewing needle attached with a piece of 6 inches long string (Fig. 2) was successfully removed via gastrotomy. The animal started showing signs of clinical improvement under the treatment given in the post operative period. The skin sutures were removed 10th day postoperatively and the animal made an uneventful recovery.

Ingestion of linear foreign bodies and particularly needles have been frequently reported but these foreign bodies often get entrapped upper gastrointestinal tract either in the tongue parenchyma (Tyagi *et al.*, 2006) or it may get engaged in the oesophageal mucosa (Dass *et al.*, 2005). Most of the times, it usually

either fails to reach stomach while sometime it may even pass through the intestinal tract uneventfully (Leape and Holder, 1983). Ingested needle may lead to problem if it reaches stomach and there is thread attached to it as the thread may pass down the small intestine leading to pleting of the intestinal segments which may prove fatal to the patient. However, a piece of thread was also attached to the needle in the present case but it did not pass down to enter small intestine lumen leading to plication of the intestinal segments (Strombeck, 1979).

Sharp foreign bodies apparently do not migrate from the stomach of small animals as seen commonly in large ruminants to cause 'Traumatic pericarditis' (Radostits *et al.*, 2000) but still being a foreign body there is every risk of perforation anywhere in the gastrointestinal tract and it should be removed immediately as and when diagnosed. Celiotomy has been found to be successful surgical intervention in most of the cases involving gastric foreign bodies (Fossum, 2007). Any foreign body if made to remain inside the GI tract for long time at any site can lead to vomiting, perforation, ulceration etc. leading to dehydration along with electrolyte imbalances which can eventually lead to death in severe cases (Boag *et al.*, 2005). Hence, the pre-

surgical stabilization of these patients as done in the present case must be carried out to achieve successful outcome after surgical intervention.

Generally, the uncomplicated cases of gastric foreign body obstruction carry excellent prognosis and the animal returns to normal feeding as soon as clinical recovery of the patient takes place. The perforation of the intestinal tract leads to spillage of the intestinal contents which can lead to fatal septicemia and death due to shock. Hence any case of GIT foreign body must be dealt as an emergency (Marsolais, 2004) so as to give favourable outcome after surgery.

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