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## Per rectal retrieval of a penetrating metallic foreign body from the rectum of a spitz bitch: A rare case report

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### Abstract

A Spitz bitch of 3yrs old was brought to the Veterinary Clinical Complex, with a history of foreign body ingestion, making frequent attempts to defecate, vocalizing with pain during defecation and trying to lick at the anus. All the vital signs were within the normal range. No foreign bodies were found in the oral cavity. Lateral radiograph of abdomen showed a penetrating foreign body at the level of rectum. Per rectal examination under general anaesthesia, revealed a sewing needle with thread, penetrating dorsal wall of the rectum. The needle was manipulated and released from the dorsal wall of rectum with left index finger and the thread was grasped with the right hand. The foreign body was slowly and carefully retrieved from the rectum and the bitch showed uneventful recovery.

**Keywords:** Metallic foreign body, rectum, spitz bitch

### Introduction

Dogs swallow objects much bigger than can be passed safely through the intestines because of large esophageal size. Foreign bodies that traverse the esophagus and stomach may lodge in the smaller diameter intestine. Common intestinal foreign bodies are bones, balls, toys, rocks, corn cobs, cloth and metal objects (fish hooks and needles), hair balls, tampons and linear objects (thread, pantyhose, string, plastic, cassette tape or ribbon)<sup>[2, 3]</sup>. Linear foreign bodies may cause partial or complete obstruction but the clinical presentation may change<sup>[2]</sup>. Some ingested foreign bodies continue to move and others become lodged in an intestinal segment and cause partial or complete obstruction. This paper reports a successful per rectal retrieval of a penetrating foreign body from the rectum of a Spitz bitch.

### Case History & Observations

A female Spitz dog of 3 yrs old was brought to the Veterinary clinical complex two days subsequent to the foreign body ingestion, with a history of making frequent attempts to defecate, vocalizing during defecation and trying to lick at the anus. All the vital signs were within the normal range. The oral cavity was thoroughly examined for the presence of any foreign body and no foreign body was found in the oral cavity. Lateral abdominal radiograph of the bitch showed a radiopaque penetrating foreign body at the level of rectum (Fig.1) and gravel sign. Per rectal examination under general anaesthesia, revealed a foreign body penetrating dorsal wall of the rectum.

### Treatment and Discussion

The bitch was Sedated with xylazine @ 1mg per kg body weight intramuscularly after premedication with atropine sulphate @ 0.02mg per kg body weight intramuscularly and general anaesthesia was induced with ketamine @ 10mg per kg body weight intramuscularly. The bitch was placed on left lateral recumbency. The left index finger was lubricated with xylocaine jelly and passed in to the rectum (Fig.2). The rectum was explored for the foreign body. A sharp foreign body with thread was found penetrating the dorsal wall of the rectum. The foreign body was manipulated to disengage from the dorsal wall of the rectum and the thread was slowly pulled out and grasped with the right hand. The needle was then retrieved carefully using the left index finger as guide and applying traction on the thread (Fig.3). Inj. enrofloxacin @ 5mg per kg body weight intramuscularly was given daily for 5 days. The bitch showed uneventful recovery. The retrieved foreign body was a sewing needle with a moderately long thread (Fig.4) and this sort of obstruction is uncommon in dogs.

Linear foreign bodies like thread and sewing needle with thread are relatively common in cats than in dogs [7]. The bitch made frequent attempts to defecate and was vocalizing due to pain on defecation two days after the foreign body ingestion. Clinical signs with intestinal foreign bodies vary with location, duration and severity of the obstruction [1, 9]. Linear foreign bodies cause partial obstruction, and animals may not present with clinical signs as severe as those with a discrete, complete obstruction [1]. The lateral radiograph confirmed the presence of penetrating foreign body in the rectum and gravel sign (gravel sign refers to the accumulation of indigestible material cranial to the site of obstruction) [3]. Survey radiographs were suitable to confirm diagnosis of gastrointestinal foreign body in the majority of cases [4, 5, 6]. In the present case, the obstruction in the rectum by the sewing needle was partial and the needle penetrated the dorsal wall of the rectum vertically. Colonic obstruction due to foreign body is usually partial because of distensibility of colon and its rhythmic segmentation [10]. Sharp foreign bodies may penetrate the intestinal wall and linear foreign bodies perforate at mesenteric border of the small intestine and cause peritonitis and adynamic ileus [2, 7]. In the present study, the sewing needle with thread could move up to the level of rectum without causing any damage to the abdominal organs as the bitch did not show any other symptoms other than pain on defecation. The needle traversed up to the level of rectum due to the peristalsis movements. The efforts in passing the faeces might have made the needle to move in an abnormal direction and the needle pierced the dorsal wall of the rectum causing partial obstruction and pain. Generally the foreign bodies that reach colon are expelled with faeces unless the distal colon and rectum is obstructed with foreign body that has sharp points [2]. The careful and safe per rectal retrieval of the foreign body from the rectum made the bitch recover uneventfully. Prognosis is usually good after foreign body removal [9].

In conclusion, the ingested sewing needle with thread, traversed up to the level of rectum without causing any significant damage to the internal organs and penetrating the dorsal wall of the rectum, was a rare finding and its per rectal retrieval was successful and the bitch recovered uneventfully.



**Fig 1:** Sewing needle in the rectum



**Fig 2:** Pulling the thread out of the rectum



**Fig 3:** Retrieval of foreign body



**Fig 4:** Retrieved foreign body (Sewing needle with thread)

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#### Authors' contribution

JRKR carried out the case study and analysis. C.L participated in scientific discussion, wise counsel and concrete suggestions. KJMR participated in scientific discussion. All authors read and approved the final manuscript.

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