

# **A Case Report on Enterotomy in a Cat**



*A clinical report submitted in partial satisfaction of the requirement for the  
Degree of Doctor of Veterinary Medicine (DVM)*

**Submitted by**

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**Roll No: 18/08**

**Reg No: 02065**

**Intern ID: 08**

**Session: 2017-18**

**Faculty of Veterinary Medicine**

**Chattogram Veterinary and Animal Sciences University**

**Khulshi, Chattogram – 4225, Bangladesh**

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**The Author**  
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## List of Abbreviations

<b>SL No.</b>	<b>Abbreviation</b>	<b>Full Form</b>
01	FB	Foreign Body
02	GFB	Gastro intestinal Foreign Body
03	GIT	Gastro Intestinal Tract
04	Kg	Kilogram
05	BW	Body Weight
06	Mg	Milligram

## **Abstract**

Enterotomy is a surgical procedure performed in cats to address various gastrointestinal issues, including the removal of foreign objects, treatment of obstructions, and management of certain intestinal diseases. This case report describes the surgical approach used for performing an enterotomy on a cat. The case was recorded in the Teaching and Training Pet Hospital and Research Centre (TTPHRC), Purbachal, Dhaka during an internship placement. A 6-months-old cross breed male cat weighing 2.8 kg was brought into the TTPHRC. The decision to enterotomy the cat was made by the owner to prevent obstruction and intestinal diseases. The enterotomy operation was performed under general anesthesia with following the standard surgical method. As a part of post-operative care systemic antibiotic, pain killer and antihistaminic were administered. In addition, it was recommended that an antibiotic ointment containing povidone-iodine be used on the wound until complete healing. After the procedure, the owner was instructed to confine the animal's movement by keeping it indoors in a neat squeeze cage. The cat's rehabilitation went without any issues, and no complications were found.

**Keywords:** Enterotomy, Cat, Foreign body, radiography and ultrasonogram

## **Chapter 1: Introduction**

Enterotomy in a cat is a surgical procedure performed to make an incision into the intestine. It is frequently performed to treat intestinal obstructions, injuries, or infections as well as to remove foreign bodies. In cats (*Felis catus*), the presence of foreign bodies (FB) in the gastrointestinal tract frequently constitutes a life-threatening risk. These FB that cats ingest cause gastrointestinal blockage or perforation, require immediate surgical intervention (Tyrrell & Beck, 2006). Foreign bodies in the gastrointestinal tract (GFB) can completely or partially hamper the digestive system. Partial obstruction causes chronic digestive issues and malabsorption, whereas complete obstruction causes very severe clinical symptoms and a rapid decline in overall condition (Hayes, 2009). Additionally, blockages brought on by FB in the digestive tract may cause stomach dilatation or volvulus (Kassem et al., 2014). Cats have frequently been found with stones, plastic objects, blunt objects like erasers, and sharp foreign objects like threads, needles, and cables (Abd Elkader et al., 2020) (Bebchuk, 2002) (Den Hertog, 2003) and (Hoffmann, 2003). Regular vomiting, diarrhea, sudden loss of appetite, abdominal pain, abdominal swelling, dehydration, and depression are among the clinical symptoms (Bebchuk, 2002). To diagnose FB, a proper anamnesis must be conducted in addition to clinical and radiographic exams. Direct radiographs provide for simple visualization of radiopaque GFB. Shape and gas accumulation can be used to identify non-radiopaque FB, but this isn't always practicable. Radiolucent FB can clog or perforate tissue, hence positive contrast chemicals like barium sulfate or iodine are employed to identify these conditions (Papazoglou et al., 2003). FB are concentrated in the stomach, esophagus, small intestine, and large intestine. The jejunum is the area of obstruction that occurs the most frequently, and enterotomy is the most successful treatment (Kassem et al., 2014). Depending on the location of the FB and the issue it causes, either conservative treatment or surgical intervention may be used as a form of treatment (Hayes, 2009). This study aimed to present the localization, nature, diagnosis, and treatment of FB detected in the gastrointestinal systems of cats of different breeds and sexes brought to Teaching & Training Pet Hospital and Research Center (TTPHRC), Dhaka.

### **Objectives:**

1. To perform and evaluate the standard surgical technique of enterotomy in cat.
2. To identify the pre and post anesthetic hazards.
3. To remove foreign body from the intestine.

## **Chapter 2: Materials and Method**

### **2.1. Case history and description:**

The Teaching and Training Pet Hospital and Research Centre (TTPHRC) in Purbachal in Dhaka received a visit from a 6-month-old male cross-breed cat weighing 2.8 kg with a complaint of anorexia, acute vomiting and no feeding. To avoid obstruction and digestive illnesses, the cat's owner wanted to have the animal undergo an enterotomy. A complete general physical examination was carried out before the surgery, and the cat was found to have an abnormal body condition. It had a pink mucous membrane with signs of dehydration. Transabdominal ultrasound was performed after abdominal probing during a normal clinical examination revealed a solid mass in the middle of the belly. Clinical signs, ultrasonographic results, and radiographic findings led to the diagnosis of intestinal obstruction, and the decision was made to perform an emergency enterotomy in order to recover any foreign bodies.

### **2.2. Anesthesia and control:**

To restrain the cat, both chemical and physical techniques were applied. The cat was pre-medicated intramuscularly with xylazine @1.0 mg/kg body weight. The surgical site was cleaned and sterilized in preparation for the procedure after the requisite trimming and shaving. In order to achieve a general anesthetic effect, the anesthetic protocol called for the intravenous administration of a ketamine hydrochloride @8.0 mg/kg body weight. Intravenously given normal saline was used to start a fluid treatment program.

### **2.3. Surgical procedure:**

We first created a treatment plan before beginning the surgery. We were concerned for the cat's security. Therefore, we monitor the cleanliness and pain management procedures extremely carefully. After sterilizing a general surgical pack at 121 degrees Celsius, we use it. We ensured that the anesthesia was administered correctly, that the dose was maintained, and that a sterile environment was maintained during the procedure. With the animal on dorsal recumbency, caudal to the umbilicus a linear ventral midline skin incision was made, followed by subcutaneous tissue, linea alba and peritoneum and the affected intestinal part was pulled out of the abdomen near to the incision site as per the standard surgical procedure. At the distal margin of the mass, an enterotomy incision was made at the antimesenteric border and a foreign body was removed. The



area was thoroughly cleaned and the enterotomy incision was closed by a simple interrupted and simple continuous suture by using vicryl no. 3-0. The abdominal cavity was flushed with ample of warm normal saline. The linea alba closed with vicryl no. 2-0 by interrupted pattern, muscle closed with vicryl no. 2-0 by simple continuous pattern, subcutaneous by a simple continuous pattern by using vicryl no. 2-0 and skin by simple interrupted suture pattern by using polyamide no. 1 Wound was cleaned and dressed.

#### **2.4. Post-operative treatment and care:**

Following surgery, the antibiotic ceftriaxone was given intramuscularly for 7 days at a dose of 25 mg/kg body weight (Trizon vet 500 mg). For 7 days, intramuscular administration of the antihistaminic drug pheneramine maleate at 0.5 mg/kg body weight (Phenadryl vet 10ml) was used. Subcutaneously given analgesic meloxicam @ 0.2 mg/kg body weight (Melvet 10ml) for 3 days. It was advised to confine the animal to a spotless observation cage for seven days. It was advised that the owner use antiseptic povidone-iodine ointment to the wound location until full healing. Everything worked out exactly as we had hoped. The OT room was kept clean and sterile at all times during the procedure. After having the surgery for 14 days, the animal recovered completely.

## **Chapter 3: Results and Discussion**

### **3.1. Result:**

The procedure was successful as the cat rapidly regained consciousness after anesthesia, and there were no complications. No additional bleeding was found. Following the anesthesia recovery, the cat was prescribed a seven-day course of systemic antibiotics and then sent home.

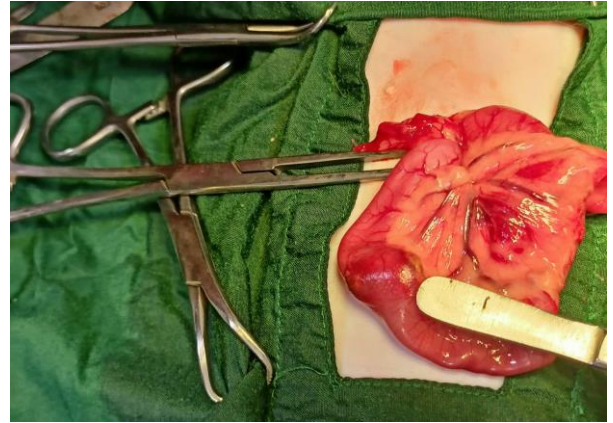
### **3.2. Discussion:**

The obstruction of the gastrointestinal tract was one of the most prevalent cat diseases. Due to their indiscriminate feeding habits and lively disposition, young male cats have a very high incidence rate of GIT obstruction (Kumar DD, 2000). The jejunum is the most frequent site (Hayes, 2009). In the current instance of GIT obstruction, the areca nut was blocked in the distal region of the jejunum. A few tiny plastic and stone things Because contact between the intestine's mucosa and a foreign body causes a condition known as the mural withdrawal reflex, which causes the intestine to dilate locally, sharp foreign bodies such as pins, sewing needles, and fish hooks that are found in asymptomatic animals may be treated conservatively and pass without causing any symptoms (Guilford et al., 1996). When an animal is unresponsive to medication, an enterotomy is carried out on an emergency basis to aid in the identification of the damaged intestinal loops (Horstman et al., 2003) following the treatment of fluid and electrolyte imbalance, particularly hypokalemia (Boag et al., 2005). The hallmark symptoms of gastric foreign bodies are almost always vomiting and occasionally diarrhoea or not passing feces; however, if the object is large, they may completely obstruct the outflow and the vomiting may be too frequent. Vomiting may be intermittent, and small foreign bodies may allow animals to continue eating and being active (Patil et al., 2010).

## Figures



**Fig-3.1:** Preparation of Surgical Site



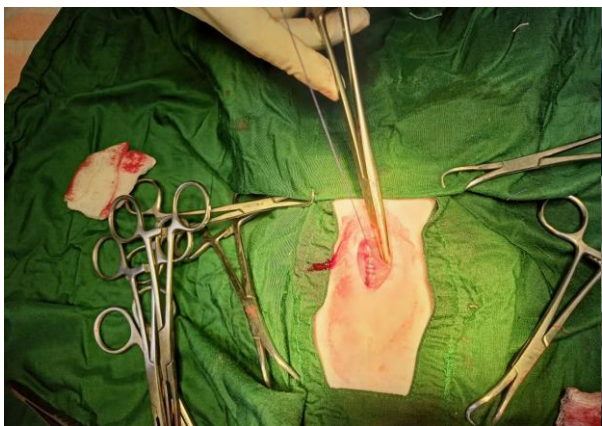
**Fig-3.2:** Locating of Foreign Body



**Fig-3.3:** Incision of Affected Intestinal part



**Fig-3.4:** Removed Foreign Body (Stone)



**Fig-3.5:** Suturing Muscle and Peritoneum



**Fig-3.6:** After a Successful Surgery

## **Chapter 4: Conclusion**

Enterotomy is a surgical operation used to repair severe injuries, cure intestinal disorders, and remove foreign items from the body. In veterinary medicine, it is essential to carefully evaluate and arrange for the procedure, taking into account the cat's health and particular condition. Like in people, there are hazards associated with enterotomy in cats, and postoperative care is crucial for a full recovery. When necessary, veterinarians ensure long-term follow-up for feline patients and explore other medical options.

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## **Biography**

I am Md. Mahabub Rahoman, son of Md. Mozammel Hossain Most. Shewle Begum. I passed Secondary School Certificate examination in 2014 (G.P.A. 5.00) followed by Higher Secondary Certificate examination in 2016 (G.P.A. 5.00). Now I am an intern veterinarian under the Faculty of Veterinary Medicine in Chattogram Veterinary and Animal Sciences University. In the future I would like to work as a veterinary practitioner and do research on clinical animal diseases in Bangladesh.