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RESEARCH ARTICLE
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# UNUSUAL FOREIGN BODY INGESTION LEADING TO BOWEL OBSTRUCTION

**Dr. Khalid Usman[1], Dr. Muhammad Moazzam Farooq[2], Dr. Aamir Ahmed[3], Dr. Ameer Hamza[4], Dr. Zubair Ahmad[5*], Dr. Ammar Munawar[6], Dr. Muhammad Tayyab Khan[7], Dr. Moosa Ali[8], Dr. Samandar Khan Babar[9]**

[1]Orthopaedic Resident Surgeon, Hayatabad Medical Complex, Peshawar
[2]Resident Surgeon, Group A Speciality, Hayatabad Medical Complex, Peshawar
[3]Emergency Medical Officer, Wahab Medical Complex, Lower Dir
[4]Resident Training Medical Officer, Internal Medicine, MTI-Mardan Medical Complex, Peshawar
[5*]Resident Internal Medicine, Hayatabad Medical Complex, Peshawar
[6]Public Health Expert, Peshawar Institute of Medical Sciences / Pak International Medical College, Peshawar
[7]Resident Surgeon, Group A Surgical Speciality, Hayatabad Medical Complex, Peshawar
[8]Postgraduate Resident, Department of Medicine, Khyber Teaching Hospital / Khyber Medical College, Peshawar
[9]Resident Internal Medicine, Hayatabad Medical Complex, Peshawar

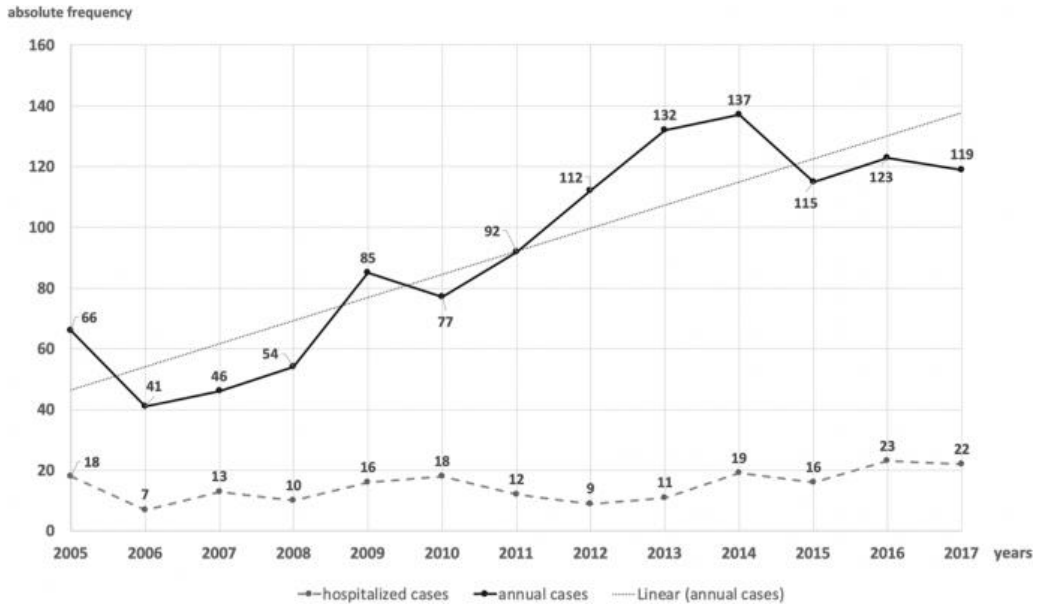
***Corresponding author:** Dr. Zubair Ahmad
*Resident Internal Medicine, Hayatabad Medical Complex, Peshawar, Email: dr.zubair1193@gmail.com

## Abstract
Herein, we report a case of a 62-year-old man with underlying diabetes and hypertension who presented to our hospital with symptoms including severe abdominal pain, vomiting associated with obstipation (failure in bowel motion), and confusion. Referred from Talash Dir Lower Pakistan, the clinical appearance was of a patient whose symptoms had worsened over 48 hours. The history of the present illness was followed by a physical examination and laboratory tests, which were consistent with a bowel obstruction. Diagnostic imaging confirmed an ileal obstruction due to a foreign body. A laparotomy was performed, and the foreign body was successfully removed. Immediately after hospital discharge, the patient was asymptomatic with no complications involving centralized postoperative recovery. Conclusion This case would bring to the forefront thinking outside of the zone in terms of diagnosis approach, including rare foreign body ingestion on the differential for bowel obstruction abdomen, especially with no apparent history.

## Introduction
Foreign body ingestion is a common occurrence, especially among children and some adults (e.g., patients with psychiatric conditions) or limited cognitive reserve. In the general adult population, it is rare and often in conjunction with accidental ingestion of objects like dental appliances or food that do not pass through the GI tract (Sonwane, 2022). Complications of Foreign Body Ingestion Complications related to foreign body ingestion vary greatly and include mild discomfort, self-limited symptoms that require no treatment, as well as severe life-threatening conditions. The most common complications include mucosal injury, perforation and intestinal obstruction (Griffiths, 2023). Bowel

obstruction can be a life-threatening condition in need of emergency diagnosis and treatment. Poor management can cause morbidity and mortality.

Awareness of usual and unusual causes of bowel obstruction, including foreign bodies other than food items such as those mentioned here, is essential to diagnose this condition early for prompt treatment. Misdiagnosis or delayed diagnosis can result in poor patient outcomes, such as more extended hospital stays and higher healthcare costs with a risk of complications (Andersson, 2020). The current case report illustrates the need to keep foreign body ingestion as one differential diagnosis in a patient with symptoms of bowel obstruction, even if it is not classic or a detailed history cannot be elicited but failed to materialize at first due to lack of details, etc. progression etiological.




| Year | Hospitalized Cases | Annual Cases |
|---|---|---|
| 2005 | 18 | 66 |
| 2006 | 13 | 41 |
| 2007 | 10 | 46 |
| 2008 | 16 | 54 |
| 2009 | 18 | 85 |
| 2010 | 12 | 77 |
| 2011 | 9 | 92 |
| 2012 | 11 | 112 |
| 2013 | 19 | 132 |
| 2014 | 16 | 137 |
| 2015 | 23 | 115 |
| 2016 | 16 | 123 |

The table displays the frequency of annual and hospitalized cases from 2005 to 2017. It shows a general upward trend in yearly cases, peaking at 137 in 2014, while hospitalized cases fluctuate with more minor variations, ranging between 9 and 23 cases annually. This indicates a significant increase in overall cases over the years, with relatively stable but low hospitalization rates (Argenziano, 2020).

**Case Presentation**
**Patient Demographics**
**Age:** 62 years
**Medical History:** Diabetes, Hypertension

**Chief Complaint:** The patient presented with severe abdominal pain, Vomiting, Constipation, and Confusion.

**History of Present Illness**

The patient, a 62-year-old male with a known history of diabetes and hypertension, was referred from Talash Dir Lower with a primary complaint of severe abdominal pain that had progressively worsened over the past 48 hours. The pain was described as diffuse and crampy. Over the same period, the patient also experienced multiple episodes of vomiting and had been unable to pass stools or flatus, indicating constipation. Additionally, family members reported that the patient had become increasingly confused and disoriented over the past day. There was no immediate recollection of ingesting any unusual objects; however, the patient's confusion and the lack of a clear history raised concerns about the possibility of unnoticed foreign body ingestion (Montana, 2020).

**Physical Examination**

**Vital Signs**

- Blood Pressure: 150/90 mmHg
- Heart Rate: 96 beats per minute
- Respiratory rate- 20 breaths/min
- Temperature: 37.2°C
- Blood Glucose Level 180 mg/dL

**General Appearance**

- The patient was anxious and uncomfortable.
- He was awake but disoriented, alternating with periods of restlessness.

**Abdominal Examination**

- The exam showed a mildly distended abdomen with easily visualized peristalsis.
- Palpation was notably tender in the lower quadrants without rebound tenderness.
- Heavy-duty bowel sounds
- No mass was palpable, and rectal examination findings were normal.

**Diagnostic Workup**

**Laboratory Tests**

1. **Blood Glucose Levels**

It had a value of 180 mg/dL, which was not unexpected or significant in the context of known diabetes.

2. **Complete Blood Count (CBC)**

- White Blood Cell (WBC) count- 14,000/UL (high, suggesting that there may be infection or inflammation.)
- Hb 13.5 g/dL (normal)
- Typical range:- 250,000/µL platelet count.

3. **Electrolytes**

- Sodium (Na): 135 mEq/L at the time of admission, which was normal for him.
- Potassium (K): 3.8 mEq/L(normal)
- Chloride (Cl): 102 mEq/L(normal)
- Bicarbonate (HCO3): 20 mEq/L ( Mild hypobicarbonatemia, possibly indicating some metabolic acidosis).

4. **Renal Function Tests**

- Blood Urea Nitrogen (BUN) = 25 mg/dL = Elevated
- Creatinine: 1.4 mg/dL (high, points toward impaired renal function)

## Treatment and Management

### Initial Management

**1. Stabilization of Patient**

- Adhesion patient acquired in the emergency department, NPO.
- The patient was started on IV fluids for dehydration and electrolyte abnormalities.
- A nasogastric tube was placed to relieve vomiting and gastric decompression.

**2. Pain Management**

- Pain was controlled with IV analgesia, i. e., morphine, according to the level of pain felt by the patient.
- Anti-emetics (ondansetron) were given to combat nausea and vomiting.

**3. Diabetic & Hypertensive status**

- Control of Frequent blood glucose checks were carried out with insulin treatment adjusted accordingly to achieve euglycemia.
- Standard field monitoring was performed to ensure blood pressure remained within target ranges and that antihypertensive medications were adjusted accordingly.

### Definitive Treatment

#### Surgical Intervention Details

The final treatment of choice was exploratory laparotomy because of the confirmed diagnosis (bowel obstruction due to a foreign body)**.**

#### Type of Surgery Performed

- The patient was treated with exploratory laparotomy under general anaesthesia.
- The surgical team found an obstruction in the distal ileum during surgery, which was included as part of their procedure.

#### Findings during Surgery

A foreign body, likely the identified imaging object and corresponding to a 2-cm sharp metal screw (images), was identified in situ within the distal ileum. Localized inflammation and oedema, but no evidence of perforation or ischemia. Foreign body retrieval and inspection of the affected segment for viability,

#### Postoperative Care

The patient was sent to the postoperative care unit for observation during recovery. Postoperatively, IV fluids were administered, and pain was adequately managed. As her bowel function returned, a gradual oral intake was reintroduced. This consisted of monitoring for potential complications such as infection, bowel perforation and recurrent obstruction. Postoperatively, diabetic and hypertensive management were modified according to the patient's status. The patient was also counselled regarding the need for regular follow-up to assess recovery as well as avoid any recurring LANG=EN-IN

## Outcome and Follow-Up

### The Immediate Postoperative Course

The patient underwent an uneventful surgery with no intraoperative complications. The patient was bright, alert, and oriented during the immediate postoperative period, with marked improvement in her abdominal pain and vomiting. His vital signs were stable, and his hemodynamics remained normal. The initial postoperative recovery was uneventful, and the patient was transferred to a regular ward in less than 24 hours.

### Short-term Follow-Up Results

The patient's bowel function resumed over the first postoperative week, as evidenced by flatus and average stool output. The patient was back on a diet as tolerated, and the level of advancement from

clear liquids was individualized. Insulin was used for blood glucose level management, with ongoing antihypertensive medications given that doses were adjusted as required. Serial assessment of wound healing showed no evidence of infection or dehiscence. The patient was discharged to home care on postoperative day 7 with outpatient cardiovascular follow-up.

**Long-term Follow-Up Results**

At 1-month follow-up, the patient remained asymptomatic of abdominal pain and had resumed normal bowel function. Eventually, there were no more vomiting and constipation. The surgical incision was completely healed without any signs of infection or complications. Her glycaemic and antihypertensive status remained stable on therapy. She followed dietary and lifestyle guidelines to avoid repeating the same issues.

**Recovery and side effects of cold**

The patient had an uneventful recovery and did not experience any significant or minor complications during the early- and long-term follow-up. Establishing a routine for follow-up to monitor health status and progress was advised, particularly in the case of chronic diseases - e.g., diabetes or hypertension. The patient was educated that swallowing foreign bodies could present a potential risk and counselled to avoid eating non-food items, as well as referred for medical attention should there be a recurrence of similar symptoms.

**Discussion**

The case of a 62-year-old diabetic and hypertensive presenting with bowel obstruction due to an unusual foreign body ingestion is worth reporting because it brings up various points in the practice. Foreign body ingestions are seen primarily in pediatric populations but in a few at-risk adult groups, such as psychiatric illnesses (Saltiel, 2020). However, this case also highlights severe deceases of foreign body ingestion in the general adult population and must be considered seriously by doctors.

Complications of foreign body ingestion have been reported in the existing literature, ranging from benign to life-threatening conditions. The most common complications of this device are mucosal injuries, perforation and obstruction (Lee, 2021). Bowel obstruction, in particular, is a much more severe complication that necessitates rapid and correct diagnosis to prevent morbidity as well as mortality. In our case, the diagnostic difficulty was exacerbated by patient confusion and an unclear history of foreign body ingestion. These findings reflect those of other investigations where they have stated that it can be challenging to get the diagnosis, especially in cases without an ingestion history (Speidel, 2020)).

Management of this case included treatment to stabilize the patient from her immediate life-threatening state, plus addressing multiple chronic conditions—first stabilization, as it related to pain and electrolyte correction before surgery. Surgical excision of the foreign body resulted in a successful relief of symptoms and identification source for TEAS. The approach to care in this case is consistent with the literature supporting a multidisciplinary manner of managing these complex foreign body ingestion cases (Bamashmos, 2021).

The present case underlines the necessity of contemplating a less-known foreign body ingestion as an etiological factor in bowel obstruction. A lack of a clear history can result in misdiagnosis or delayed diagnosis, ultimately harming the patient (Newman-Toker, 2021). In this case, prompt imaging and a decision for exploratory surgery were essential to identify and manage the foreign body-induced obstruction.

This case offers several points for discussion and also learning in clinical practice (Varkey, 2021). Firstly, bowel obstruction symptoms in adults with no apparent history must be aware of the signs and place a precise warning index high. Secondly, early detection by an immediate and thorough workup should obtain further improvement of the diagnostic pathway with optimal radiologic characteristics. Ultimately, an interdisciplinary approach to treatment is essential in treating acute and

underlying chronic disease to improve gravidarum-related outcomes successfully. Conclusions Physicians in future clinical practice should further highlight these strategies to enhance the early detection and manipulation of exceptional cases of foreign body ingestion and bowel obstruction (Simbila, 2021).

## Conclusion

We may learn from this case report that the ingestion of an uncommon foreign body might lead to bowel obstruction in a patient who was 62 years old and had diabetes and hypertension. Highlights are developed that include the requirement for meticulous clinical suspicion in all patients with abdominal pain, vomiting and constipation, but specifically those with confusion or without a clear ingestion history. Therefore, the complexity of diagnosis in such cases emphasizes a range of imaging and management.

Clinical practice deep insights: requires a comprehensive and cautious diagnostic approach in similar presentation. The importance of early diagnosis and management cannot be overemphasized, as bowel obstruction is fraught with serious complications. The case is also a reminder of the importance of bridging acute care with continued management of long-term chronic diseases such as diabetes and hypertension to support overall patient stabilization and healing.

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