Albanian Journal of Trauma and Emergency Surgery (2025) 9/2:1893 - 1895
DOI: 10.32391/ajtes.v9i2.459

CASE REPORTS

Unexplained Foreign Body in the Abdomen: A Diagnostic Dilemma

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Received: 10 April 2025 / *Accepted:* 5 May 2025 / *Published online:* 20 July 2025
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Abstract

Introduction: Foreign body ingestion or insertion into the gastrointestinal tract is not uncommon, particularly in patients with psychiatric disorders, cognitive impairments, or cases of abuse. However, when such incidents go unreported due to altered mental status or inability to provide an accurate history, they present a significant diagnostic challenge, especially in primary or secondary healthcare facilities lacking advanced imaging modalities.

Diagnosing intra-abdominal foreign bodies can be a significant challenge in primary or secondary care settings, particularly when advanced imaging modalities are unavailable, and the patient cannot provide a reliable medical history.

We present the case of a male patient in his early 60s with a history of hypertension and psychiatric illness who arrived in an altered mental state, accompanied by fever and persistent vomiting for two days. Initial evaluation with a plain abdominal X-ray revealed a large, radio-opaque object in the abdomen.

An emergency exploratory laparotomy was performed, which uncovered an unusual assortment of foreign bodies in the peritoneal cavity, including a pestle, a pencil, and multiple eraser fragments. A tear was identified in the anal canal as the likely point of entry. The patient underwent primary repair of the perforation and a diversion colostomy.

Conclusion: This case highlights the necessity of maintaining a high index of suspicion for intra-abdominal foreign bodies in patients presenting with nonspecific abdominal symptoms, particularly when the history is limited or unreliable due to psychiatric or cognitive impairments. Prompt imaging, even basic radiographs, can provide crucial insights, and early surgical intervention can be life-saving. Surgeons must remain vigilant and receptive in their diagnostic approach, as rare and unexpected findings can significantly change management and outcomes.

Keywords: Foreign body, diagnostic challenge, exploratory laparotomy, anal canal perforation, abdominal surgery.

Introduction:

Managing cases at a primary or secondary care facility with resource limitations and constraints on patient transfer presents a unique challenge to the management team. Care providers, armed with their clinical acumen, must rely on their expertise more than technological aids for diagnosis and management. Per-rectally inserted foreign bodies are commonly seen at a large-volume center, averaging one per month [1].

The patients, when in a condition to provide history, are often not forthcoming due to the stigma associated. The challenge is further compounded if the patient presents when they are not in a condition to provide a proper history or are also suffering from other illnesses, in which case, the provided history is unreliable. In the presence of clinical features suggestive of peritonitis, it is crucial to maintain a low threshold for performing an exploratory laparotomy to obtain a favorable outcome. A diversion procedure is the best approach for perforation and frank contamination.

Limited studies are available regarding the long-term follow-up of these patients [2].

Original article, no submission or publication in advance or in parallel

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Case Presentation:

Our patient was a gentleman in his early 60s who was on antihypertensives and antipsychotics (no documents for the exact diagnosis were available with the patient regarding the same). He presented with complaints of fever with vomiting for two days duration. On presentation, the patient was in an altered sensorium with low-grade continuous fever, tachycardia, and tachypnoea. Blood counts revealed azotemia with leucocytosis. The patient was admitted and started on IV fluids and parenteral antibiotics. Given the abdominal distention, an X-ray was also performed, revealing a large radio-opaque object in the right iliac fossa (Fig. 1).

Figure 1. Abdominal X-ray showing a foreign body in the abdomen.

His condition continued to deteriorate, and a decision to perform an exploratory laparotomy was made. There was 1.5 L of purulent collection in the intra-abdominal cavity. A metallic pestle, a pencil, and eraser shreds were also found in the abdominal cavity (Fig. 2).

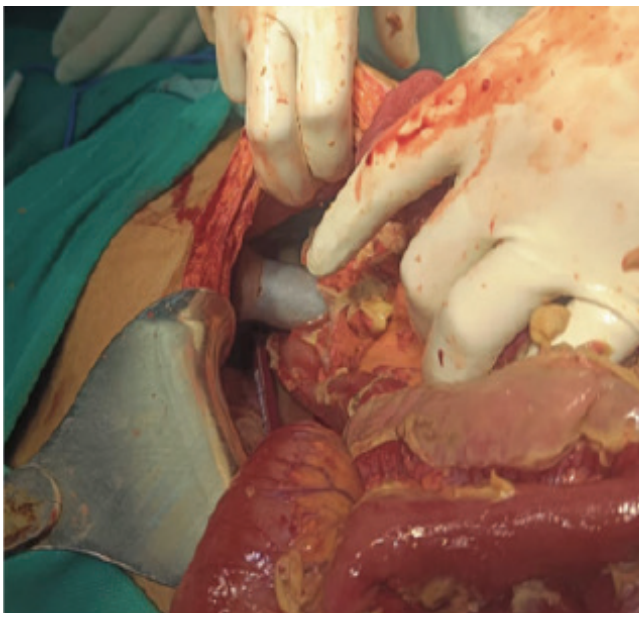

Figure 2. Foreign body (Pestel)in the abdomen.

There was a circumferential tear of the anal canal, which was repaired primarily, and a diversion colostomy was performed.

Outcome and follow-up: The patient's general condition improved gradually, and he was discharged on post-op day 7. Currently, he is undergoing follow-up and is scheduled for restoration of bowel continuity after preoperative nutritional optimization.

Discussion:

Retained foreign bodies in the rectum have been described in the medical literature since the 16th century [3]. Their management, with the advent of imaging and non-invasive extraction modalities, has undergone significant evolution. Most studies support routine endoscopic evaluation for such patients to assess the extent of mucosal damage caused, even in the absence of apparent signs of perforation [4].

Lake et al. reported mucosal abnormalities in 16% of the patients without obvious perforation [1].

Up to 20% of the patients reporting a history of rectal foreign object insertion are not forthcoming [5]. Patients with a history suggestive of retained foreign objects should be carefully examined for features of peritonitis, and no delay should be made in performing an exploratory laparotomy if these signs are present. Endoscopic extraction may be attempted based on the patient's condition, the position of the objects, and the availability of resources.

Transanal extractions are successful in 65-70% of the cases and can be performed easily in the emergency department [6]. A clinician should maintain a high index of suspicion for retained foreign objects in cases where the patient presents with altered sensorium and features of peritonitis. A plain radiograph is usually sufficient to identify the location and nature of the object [7].

No delay should be present in operative intervention in such cases. These cases can be especially challenging in primary or secondary care facilities with limited resources and opportunities for evacuation to a higher-level center. In such scenarios, the surgeon must rely on their clinical skills in the decision-making process. In patients with perforation, a primary repair with a diversion stoma is the standard of care and has shown positive outcomes in multiple studies [8, 9, 10].

A Hartmann procedure must be undertaken if the patient's condition does not permit a repair [11].

If the patient's clinical status is unstable or unsuitable for primary anastomosis, a Hartmann procedure is indicated. In cases where a primary repair is contraindicated due to the patient's condition, a Hartmann procedure becomes necessary.[12]

A Clinician should have a high index of suspicion for a retained foreign body in the setting of unexplained features of peritonitis. Exploratory laparotomy with Hartmann procedure, with or without primary repair, is the treatment

of choice in patients with retained foreign bodies in the presence of peritonitis.

Conclusion:

This case highlights the importance of maintaining a high index of suspicion for intra-abdominal foreign bodies in patients presenting with nonspecific abdominal symptoms, especially when history is limited or unreliable due to psychiatric or cognitive impairment. Timely imaging, even basic radiographs, can provide critical clues, and early surgical intervention may be life-saving. Surgeons must remain vigilant and open-minded in their diagnostic approach, as rare and unexpected findings can significantly alter management and outcomes.

COI Statement: This paper has yet to be submitted in parallel, presented fully or partially at a meeting, podium, or congress, published, or submitted for consideration beforehand.
No relevant or minor financial relationships exist between authors, their relatives, or the next of kin with external companies.

Disclosure*:* The authors declared no conflict of interest. No funding was received for this article.

References:

1. Lake, J. P., Essani, R., Petrone, P., Kaiser, A. M., Asensio, J., & Beart, R. W., Jr (2004). Management of retained colorectal foreign bodies: predictors of operative intervention. *Diseases of the colon and rectum*, *47*(10), 1694–1698. https://doi.org/10.1007/s10350-004-0676-4
2. Cologne, K. G., & Ault, G. T. (2012). Rectal foreign bodies: What is the current standard? *Clinics in colon and rectal surgery*, *25*(4), 214–218. https://doi.org/10.1055/s-0032-1329392
3. Haft, J. S., & Benjamin, H. B. (1973). Foreign bodies in the rectum: some psychosexual aspects. *Medical Aspects of Human Sexuality*, *7*(8), 74–95.
4. Goldberg, J. E., & Steele, S. R. (2010). Rectal foreign bodies. *The Surgical Clinics of North America*, *90*(1),. https://doi.org/10.1016/j.suc.2009.10.004
5. Kurer, M. A., Davey, C., Khan, S., & Chintapatla, S. (2010). Colorectal foreign bodies: a systematic review. *Colorectal disease: The official journal of the Association of Coloproctology of Great Britain and Ireland*, *12*(9), 851–861. https://doi.org/10.1111/j.1463-1318.2009.02109.x
6. Cohen, J. S., & Sackier, J. M. (1996). Management of colorectal foreign bodies. *Journal of the Royal College of Surgeons of Edinburgh*, *41*(5), 312–315.
7. Koornstra, J. J., & Weersma, R. K. (2008). Management of rectal foreign bodies: description of a new technique and clinical practice guidelines. *World journal of gastroenterology*, *14*(27), 4403–4406. https://doi.org/10.3748/wjg.14.4403
8. Demetriades, D., Murray, J. A., Chan, L., et al. Committee on Multicenter Clinical Trials. American Association for the Surgery of Trauma (2001). Penetrating colon injuries requiring resection: diversion or primary anastomosis? An AAST prospective multicenter study. *The Journal of Trauma*, *50*(5), 765–775. https://doi.org/10.1097/00005373-200105000-00001
9. Dogjani A., Jonuzi E., et al. What is more important in the Management of Penetrate Abdominal Trauma? Eur J Trauma Emerg Surg (2018) 44 (Suppl 2): S273–S617; ECTES 2018 - 19th European Congress of Trauma & Emergency Surgery, 6 – 8 May 2018. Valencia, SPAIN. Doi: 10.13140/RG.2.2.20059.72489
10. Dogjani, A., Hasanaj, B., & Doll, D. (2016). Meckel diverticulum injury after penetrating abdominal trauma. *Translational and Clinical Medicine-Georgian Medical Journal*, *1*(1), 18-19.
11. Herr, M. W., & Gagliano, R. A. (2005). Historical perspective and current management of colonic and intraperitoneal rectal trauma. *Current Surgery*, *62*(2), 187–192. https://doi.org/10.1016/j.cursur.2004.09.004
12. Valcarcel, C.R., Bieler, D., Bass, G.A. *et al.* ESTES recommendations for the treatment of polytrauma—a European consensus based on the German S3 guidelines for the treatment of patients with severe/multiple injuries. *Eur J Trauma Emerg Surg* 51, 171 (2025). https://doi.org/10.1007/s00068-025-02852-4