International Journal of Clinical Science and Medical Research
ISSN(print): 2770-5803, ISSN(online): 2770-582X
Volume 05 Issue 10 October 2025
DOI: https://doi.org/10.55677/IJCSMR/V5I10-03/2025, Impact Factor: 8.005
Page No : 234-236

Metallic Foreign Body Ingestion in A 5-Year-Old Child: The Plain Radiographic Findings and a Case Report

Shamaki AMB[1], Sule MB[1], Umar AU[2], Gele IH[3], Abdullahi A[4].
[1]Radiology Department, Usmanu Danfodiyo University, Sokoto
[2]Radiology Department, Gombe State University, Gombe
[3]Radiology Department, Usmanu Danfodiyo University Teaching Hospital, Sokoto.
[4]Pediatric Department, Usmanu Danfodiyo University Teaching Hospital, Sokoto.

ABSTRACT

Metallic foreign body ingestion in children is a common occurrence, especially among children aged below five years, and frequently involves items like coins, batteries and small toys. Most metallic objects pass through the digestive system without complications, certain objects such as batteries, multiple magnets, sharp and pointed objects require prompt intervention due to risk of serious injuries.

This is a 5-year-old male child with no history of mental instability, was reported to have ingested an oval metallic object but in a stable condition. He was referred for abdominal radiographs from a peripheral facility. These radiographs demonstrated oval metallic density opacity in the upper abdomen measuring about 10mm x 10mm in dimension but noted to descend inferiorly on the lateral projection. No intestinal obstructive features demonstrated currently. No any other abnormality demonstrated. The parents were advised to consult a pediatric surgeon/gastroenterologist for expertise management and prevent associated injury and complication.

We report a case of oval shaped metallic density foreign body ingestion in a 5-year-old mentally stable child due to its peculiar presentation

Published Online: October 03, 2025

KEYWORDS:
Child, Metallic density, Foreign Body, Ingestion.

INTRODUCTION

Foreign body (FB) ingestion is a commonly encountered situation and often present as an emergency in the pediatric age group and often seen accidentally in children aged less than 3 years, and intentionally seen in adults with suicidal intentions[1]. About 80-90% of cases of ingested FB's pass through the gastrointestinal tract without intervention or any complication, but 0-2% of the cases of FB ingestion may require intervention and less than 1% may eventually need surgery[1-3].

Foreign body commonly ingested in the pediatric age group are metallic objects like coins, magnets, animal bones, batteries, sharp objects like needles, toys, meat bolus and marbles[1,4,5].

Corresponding Author: Shamaki AMB
Cite this Article: Shamaki AMB, Sule MB1, Umar AU, Gele IH, Abdullahi A (2025). Metallic Foreign Body Ingestion in A 5-Year-Old Child: The Plain Radiographic Findings and a Case Report. International Journal of Clinical Science and Medical Research, 5(10), 234-236

Foreign body ingestion of various objects are responsible for about 1500 annual deaths in the United States of America, the possibility of spontaneous passage of FB through the GI tract depends on the size, shape and composition of the ingested FB[6,7].

Foreign body ingestion can often lead to complications such as perforation and death if appropriate management is not timely provided, there's controversies when ingested FB's are sharp or pointed in nature as endoscopic extraction is often recommended by some experts to prevent complications[6,8].

Regarding FB impaction, this occurs in areas of anatomical narrowing such as the lower esophageal sphincter, pylorus, ileocecal valve and in some instances the appendiceal lumen[6,9]. Sharp objects such as needles, razor blade and fish bones have a risk of perforation and estimated at about 35% and often observed at the ileocecal valve[6,9].

Foreign body ingestion in children is common worldwide and metal coin is the most frequently ingested, diagnosis of which

may be from clinical evaluation, use of handheld metal detector, and radiologically from plain radiography, contrast radiography and magnetic resonance imaging (MRI)[10,11].

CASE REPORT

This is a 5-year-old male child with no history of mental instability, was reported to have ingested an oval metallic object but in a stable condition. He was referred for abdominal radiographs from a peripheral facility.

These abdominal radiographs were taken in the anterior-posterior and lateral views which demonstrated an oval metallic density opacity in the upper abdomen measuring about 10mm x 10mm in dimension (figures 1&2) but noted to descend inferiorly on the lateral projection (figure 2). No intestinal obstructive features demonstrated currently. No any other abnormality demonstrated.

The parents were advised to consult a pediatric surgeon/gastroenterologist for expertise management and prevent associated injury and complication.

We report a case of oval shaped metallic density foreign body ingestion in a 5-year-old mentally stable child due to its peculiar presentation

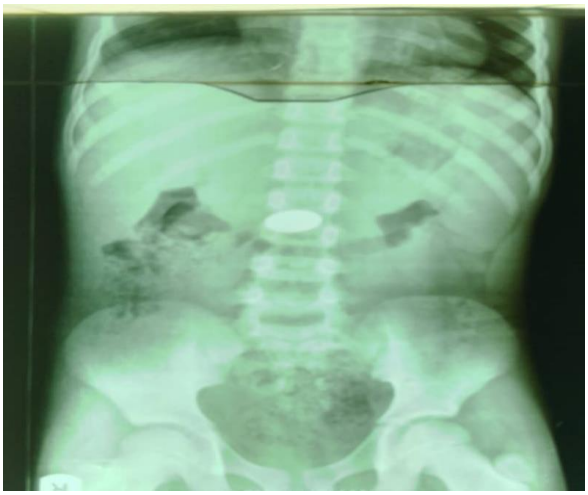

Figure 1: Plain radiograph of the abdomen in anterior-posterior projection demonstrating an oval metallic density opacity in the bowel lucency of the upper abdomen most likely transverse colon, this measures about 10mm x 10mm in dimension. No intestinal obstructive features or any other opaque foreign body demonstrated. The demonstrated bones show normal morphology.

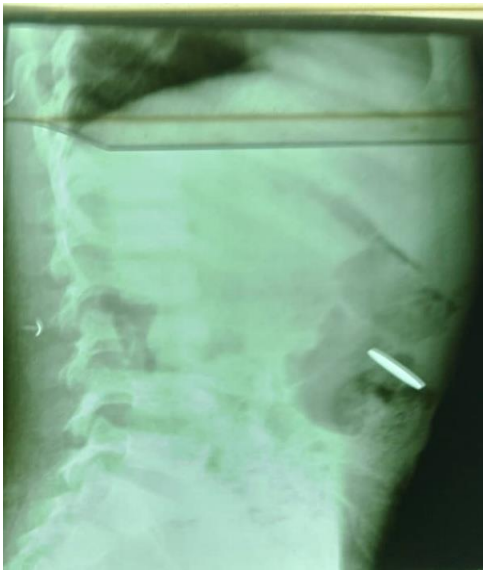

Figure 2: Plain radiograph of the abdomen in lateral projection demonstrating a near linear metallic density opacity in the bowel lucency of the lower abdomen most likely lower aspect of the colon, this measures about 10mm in linear dimension and seen to descend inferiorly when compared to figure 1. No intestinal obstructive features or any other opaque foreign body demonstrated.

DISCUSSION

Foreign body (FB) ingestion is a commonly encountered situation and often present as an emergency in the pediatric age group and often seen accidentally in children aged less than 3 years, and intentionally seen in adults with suicidal

intentions[1]. The patient under review is a child aged 5 years old with stable mental status.

About 80-90% of cases of ingested FB's pass through the gastrointestinal tract without intervention or any complication, but 0-2% of the cases of FB ingestion may require intervention and less than 1% may eventually need surgery[1-3]. The case under review was advised to consult a gastroenterologist for intervention, and did not pass through the GI tract, thereby not conforming to these literatures.

Foreign body commonly ingested in the pediatric age group are metallic objects like coins, magnets, animal bones, batteries, sharp objects like needles, toys, meat bolus and marbles[1,4,5]. The case under review is a pediatric patient with ingested metallic coin, thereby conforming to these literatures.

Foreign body ingestion can often lead to complications such as perforation and death if appropriate management is not timely provided, there's controversies when ingested FB's are sharp or pointed in nature as endoscopic extraction is often recommended by some experts to prevent complications[6,8]. The possibility of impaction cannot be ruled out in the index case considering the size of the coin; the parents were advised to consult a gastroenterologist for possible intervention.

Foreign body ingestion in children is common worldwide and metal coin is the most frequently ingested, diagnosis of which may be from clinical evaluation, use of handheld metal detector, and radiologically from plain radiography, contrast radiography and magnetic resonance imaging (MRI)[10,11]. The index case was however diagnosed clinically and from radiologic evaluation (plain abdominal radiographs), thereby conforming to these literatures.

The management of FB ingestion especially in children is often conservative, forceps removal, magnet probe and endoscopic removal were occasionally used, but most cases often pass through the GIT without intervention[10,12]. The case under review was advised to consult an expert gastroenterologist for eventual removal, for the FB appeared impacted as at the time of this report.

CONCLUSION

Foreign body ingestion is relatively common in children, most especially metallic coins, and appears opaque on plain radiographs. Therefore plain radiographs are advocated in suspected cases of metallic coin ingestion to establish a diagnosis and institute immediate management to avoid associated complications

.

REFERENCES

1. Latha GS, Mallikarjun GP, Babu V, Bhagwath KA. A rare case of ingestion of unusual foreign body in an adolescent girl. International Journal of contemporary Pediatrics. 2016;3:681-683.
2. Dehghani N, Ludemann P. Aspirated foreign bodies in children: BC Children's Hospital emergency room protocol. BCMJ. 2008; 50:252-256.
3. Hunter TB, Taljanovic MS. Foreign bodies. RadioGraphics. 2003; 23:731-757.
4. Uyemura MC. Foreign body ingestion in children. Am Fam Physician. 2005; 72:287-291.
5. Schunk JE. Foreign Body-Ingestion/Aspiration. In: Fleisher GR, Ludwig S, Henretig FM, editors. Textbook of Pediatric Emergency Medicine. 5th ed. Philadelphia: Lippincott Williams and Wilkins; 2006. pp. 307-314.
6. Boumarah DN, Binkhamis LS, AlDuhileb M. Foreign body ingestion: Is intervention always a necessity?. Annals of Medicine and Surgery. 2022; 84:104944.
7. Lyons L, Tsuchida L. Foreign bodies of the gastrointestinal tract. Med Clin. 1993; 77:1101-1104.
8. AlMuhsin A, Alsalman F, Bubshait A, Abu Hajar R. Surgical management of massive metal bezoar. Cureus. 2021.
9. Bisharat M, Spence A, McAree B, Lioe T, McManus D, Spence R, et al. Breast Cancer in women under 40- the Belfast experirnce. Eur J Surg Oncol. 2008; 34:1188.
10. Airon A, Airon N, Airon D, Jain S, Malik R. Foreign body ingestion: Report of Two cases. JAMMR. 2022; 34:164-170.
11. Lee JB, Ahmad S, Gale CP. Detection of coins ingested by children using handheld metal detector: A systemic review. Emerg Med J. 2005; 22:839-844.
12. Arana A, Hauser B, Hachimi-Idrissi S. Management of ingested foreign bodies in childhood and review of the literature. Eur J Pediatr. 2001; 160:468-472.