

Clinical examination subtleties in diagnosing an unwitnessed foreign body ingestion

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Abstract

Ingestion of a foreign body is often a common phenomenon seen in paediatrics. In these cases, the majority of foreign bodies pass spontaneously. However, between 10 to 20% require endoscopic retrieval, and 1% require surgical extraction¹. Early diagnosis can significantly reduce morbidity and mortality in this population². Radiological imaging is a useful means to establish the existence, location and physical appearance of the cause of a foreign body bowel obstruction³. We present a case of a small bowel obstruction secondary to 5 magnetic metallic balls.

Case Report

A 2-year-old male presents to the emergency department with a three-day history of persistent colicky abdominal pain, vomiting and dehydration. Intermittent episodes of non-bilious vomiting <30 minutes after each feed. Adequate oral intake. Absent bowel motions for the past three days with no flatus. No history of gastrointestinal problems or febrile illness. Unremarkable past medical, developmental and family history.

The patient was admitted with a possible diagnosis of early gastroenteritis. He was initially treated with ondansetron, intravenous fluids, analgesia, and observation overnight. The following morning, the patient was re-examined. He remained vitally stable overnight. The abdomen was soft and non-tender with tinkling bowel sounds throughout with other clinical exam findings. In the context of his abnormal bowel sounds, he underwent a plain film X-Ray of the abdomen demonstrating a foreign body ingestion. He subsequently had a CT Abdomen confirming a bowel obstruction secondary to a metallic spiral-shaped object. However, the exact object itself remained uncertain (see Fig. 1: CT Abdomen and Pelvis with Contrast Sagittal view and Fig. 2: CT Abdomen and Pelvis with Contrast Axial view). The patient underwent an emergency exploratory laparotomy with the extraction of 5 magnetic metallic balls by enterotomy at the mid jejunum with a 4cm resection of the small bowel.

Figure 1 CT abdomen and Pelvis with Contrast (Sagittal View)

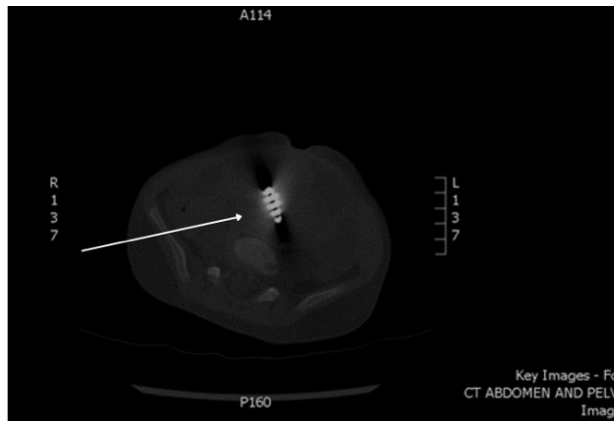
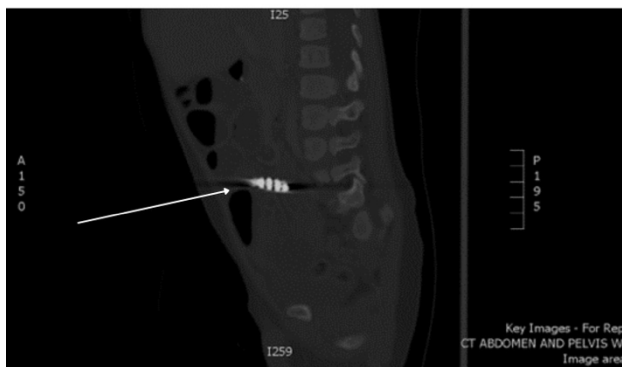


Figure 2 CT Abdomen and Pelvis with Contrast (Axial View)



Discussion

Radiological imaging plays a vital role in diagnosing an unwitnessed foreign body bowel obstruction. Similarly, this case demonstrated that although he fulfilled many of the diagnostic criteria for early viral gastroenteritis, an unwitnessed foreign body ingestion should always be considered as a differential in these case presentations.

Timely diagnosis of a bowel obstruction is key to reducing morbidity in this cohort of patients. Subtle clinical findings like absent bowel motions & tinkling bowel sounds in the absence of flatus will always need to be considered a red flag symptom of non-specific bowel obstruction.

Declarations of Conflicts of Interest:

None declared.

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Figure Legend:

Fig. 1: CT Abdomen and Pelvis with Contrast Sagittal view.

Fig. 2: CT Abdomen and Pelvis with Contrast Axial view.