

Acute on Chronic Abdominal Pain in a Toddler due to Unintentional Magnet Ingestion

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OBJECTIVES

- Identify appropriate work-up for abdominal pain in a toddler
- Educate families on safe toy choices for children
- Advocate for stronger safety regulations on magnets and magnetic objects

INTRODUCTION

High-powered magnets have become common components of household items, representing a serious health hazard to children if ingested. Although the prevalence of pediatric magnetic foreign body ingestions is <0.1%, ingestion of multiple magnets can lead to gastrointestinal perforations, fistulas, ischemia, and obstructions requiring surgical intervention and causing long-term complications. Therefore, adequate safety regulations and family education is crucial in order to decrease the risk of unnecessary surgeries for pediatric patients.

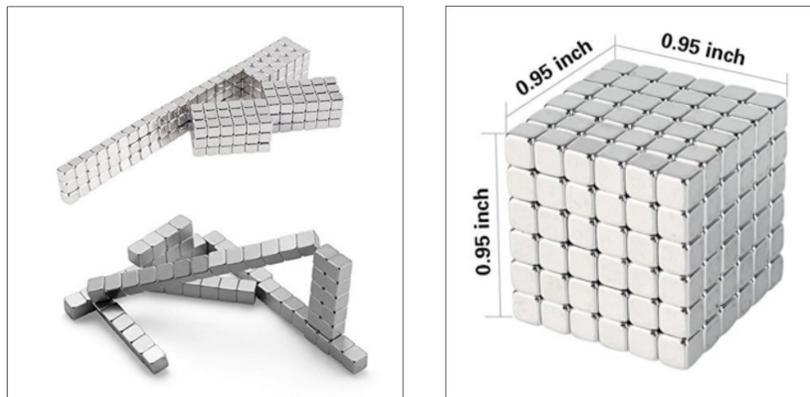


Figure 1. JIALEEY Magnetic Cubes

CASE

MR is a 21-month-old fully vaccinated otherwise healthy female who presented to the Emergency Department (ED) with worsening acute on chronic intermittent abdominal pain and vomiting for one and a half months. On arrival, she was afebrile with stable vital signs. On exam, her abdomen was soft a rest but guarding with palpation. Laboratory workup was grossly unremarkable. Abdominal x-ray revealed a 12.5 cm linear metallic object consistent with 24 magnets. Parents identified the magnets as being from a *JIALEEY Magnetic Cube™* toy that she plays with at home. The patient was taken to the operating room the following day for a diagnostic laparotomy, foreign body removal, and repair of intestinal fistulas. There were no post-operative complications and the patient was discharged home on post-operative day 4.

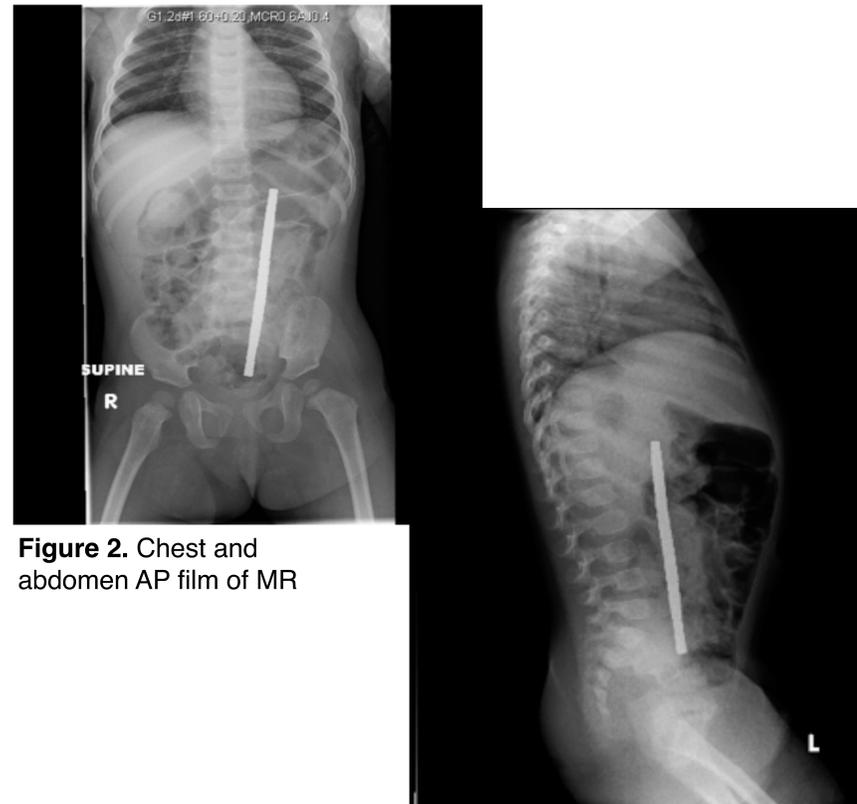


Figure 2. Chest and abdomen AP film of MR

Figure 3. Chest and abdomen lateral film of MR

CONCLUSIONS

- When evaluating a child, a thorough history and physical exam are essential in establishing the etiology and potential necessity of imaging to further evaluate the patient's pain.
- If there is a high index of suspicion of foreign body, early imaging is warranted.
- When the ingestion of magnets does occur, early recognition and intervention is critical in order to decrease the risk of complications.

IMPLICATIONS FOR PRACTICE

- Increasing safety precautions and parental education can prevent the morbidity associated with unintentional ingestion of magnets. In 2008, the American Academy of Pediatrics (AAP) successfully advocated for the new Consumer Product Safety Commission (CPSC) standards for children's products and toys that contain magnets.
- Increasing awareness by reporting magnet ingestions to the CPSC allows our community to ensure the safety of children's toys.
- However, these safety standards only apply to products specifically designed for children, so it is essential for parents to be aware of these risks that can occur with unintentional magnet ingestions.

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