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CLINICAL CASE: HYBRID SURGICAL APPROACH FOR MULTIPLE MAGNETIC FOREIGN BODIES IN A CHILD'S GASTROINTESTINAL TRACT

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Abstract

Purpose
This case report aims to demonstrate the efficacy of a hybrid surgical approach in the management of a pediatric patient with multiple magnetic foreign bodies in the gastrointestinal tract. The study highlights the diagnostic and therapeutic challenges, as well as the importance of minimally invasive techniques in reducing surgical aggression and postoperative complications.

Methods
A 3-year-old male presented to the emergency department after ingesting 27 magnetic balls from a toy construction set. The child was asymptomatic, with no dysphagia, hypersalivation, or vomiting. Physical examination revealed a soft, non-tender abdomen without signs of peritonitis. Abdominal radiography identified multiple radiopaque objects in the stomach, small intestine, and colon. Upper endoscopy retrieved four magnets from the pyloric region without evidence of perforation. Due to the remaining magnetic bodies in the small intestine, laparoscopic exploration was performed. Intraoperative findings included deformed ileal loops with magnetic "chains" causing serosal adhesions and focal ischemia. Laparoscopic removal was partially successful, but conversion to mini-laparotomy was necessary to extract the remaining magnetic bodies through the cecum after appendectomy. Postoperative recovery was uneventful, and the patient was discharged on on the ninth day. Follow-up at one month revealed no complications.

Conclusions
Timely diagnosis and a hybrid surgical approach are crucial for managing multiple magnetic foreign bodies in the gastrointestinal tract.
Minimally invasive techniques reduce surgical aggression and complication risks.