

European Society for Paediatric Gastroenterology, Hepatology and Nutrition

IMAGE OF THE MONTH

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FROM YOUNG ESPGHAN

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Small magnets with big effect

A 1.5-year-old girl was admitted to our clinic for further evaluation due to vomiting. She was drinking sufficiently and passed stool daily. Two days earlier, she had a cold and slightly elevated body temperature. On clinical examination the abdomen appeared tender and the CRP was slightly elevated (60mg/l). Blood gas analysis showed a moderate compensated metabolic acidosis. An abdominal ultrasound revealed changes of intestinal calibre, pendulum peristalsis, and free fluid, consistent with the picture of ileus. Subsequently, an x-ray of the abdomen (Figure 1 and 2) confirmed the ileus and revealed ingested x-ray dense aligned round structures. The position to each other was typical for magnets. When asked, the family confirmed that the girl had been playing with her brother's magnetic toy balls. Upon surgery peritonitis with three perforations (two in the terminal ileum in front of Bauhin's valve and one in the caecum) were found. The abdominal cavity was flushed due to stool leakage and the patient received broad-spectrum antibiotic therapy. After 10 days the patient was discharged home in good condition.

Foreign body ingestion in children are particularly common in patients between 6 months and 6 years. Magnets are dangerous as they tend to connect across different loops of bowels causing intestinal ileus, necrosis, and perforation. Patients who are symptomatic should undergo emergency surgery.



Parents should be educated about the risks of small magnets and official guidelines should be issued on their use in children's toys.



Figure 1. Distended intestinal loops in the upper/middle abdomen, otherwise rather gasless abdomen. In the lower abdomen on the right, a row of 7 small spherical x-ray dense foreign bodies is visible.

Figure 2. In lateral position air/fluid level in the distended intestinal loops.

No evidence of free air between the liver and the right abdominal wall.

