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FOOD IMPACTION IN A 9-YEAR-OLD BOY

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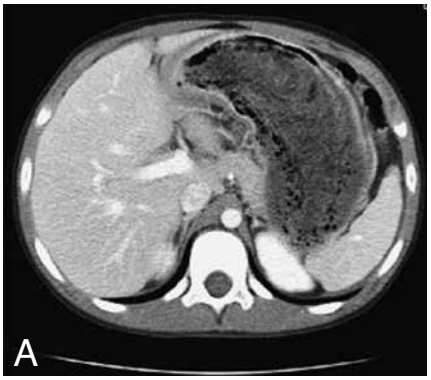
Key-word: Foreign bodies, in air and food passages

Background: A 9-year-old boy was admitted to the emergency department because of repetitive vomiting and loss of appetite for 4 days. There was peristalsis present and laboratory tests were normal.



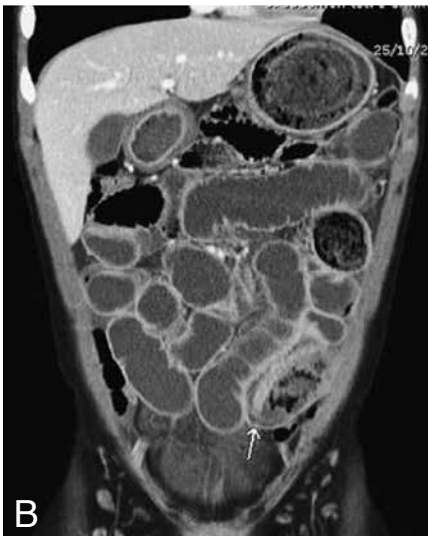


Fig. 1A 1B / 2A 2B / 2C 3

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Work-up

Ultrasonography of the abdomen (Fig. 1) shows dilated jejunal loops, with diameter up to 3,3 cm.

Contrast-enhanced CT scan of the abdomen (Fig. 2) shows on axial image at the level of the stomach (A) a pseudo-encapsulated food residue in the stomach. This inhomogeneous mass contains a mottled air pattern, predominantly at its periphery. Reformatted image in the coronal plane (B) brings confirmation of the mass in the stomach. In the left iliac fossa broken off fragments are seen (arrow). The latter cause small bowel obstruction. The diameter of the terminal ileum is normal (not shown). Reformatted image in the sagittal plane (C) shows both obstruction and the food residue in the stomach.

On the peroperative photograph (Fig. 3), the gastric bezoar and the 2 broken off fragments causing distal jejunal obstruction are shown.

Radiological diagnosis

The diagnosis of *obstruction and food impaction* was made on the basis of ultrasonography and CT findings. CT scan was suggestive for bezoar. Surgery and pathology confirmed a trichobezoar.

The combination of a lower mechanical obstruction, trichotillomania, psychiatric patient and the body of a trichobezoar in the stomach and the tail in the small bowel is called the Rapunzel Syndrome.

Discussion

A bezoar is a mass trapped in the gastrointestinal system, usually in the stomach, that is ingestible but not digestible. Predisposing causes include gastric surgery, inadequate chewing, overindulgence of high fiber content and altered gastric motility. The most common types are lactobezoar, pharmacobezoar, phytobezoar and trichobezoar.

Although rare, physicians should keep a bezoar in mind when diagnosing small bowel obstruction. Abdominal plain film has a low sensitivity for bezoars, although sometimes a soft tissue mass is shown at the air fluid level. Ultrasonography reveals the bowel obstruction and the level of obstruction, but is unable to disclose the nature of the obstructing agent.

CT scan is the preferred method for the diagnosis of bezoars causing bowel obstruction and can show additional gastric or small bowel bezoars. A bezoar shows on a contrast-enhanced CT scan as a well-defined, oval, low dense intraluminal mass. Apart from its heterogeneity bezoars are characterized by a mottled air pattern, which is predominantly observed at the periphery of the bezoar. Small bezoars are rounded or ovoid.

The usual sites of impaction are stomach, jejunum and the ileum. Treatment of bezoars can be endoscopic by fragmentation and extraction.

Mostly, especially when small bowel obstruction occurs, surgery is the method of choice for treatment. In the presented case, an explorative laparotomy was performed. The food residue situated in the stomach was removed by an anterior gastrotomy while the two broken off fragments were removed by an enterotomy. A stomach catheter was positioned.

The patient obtained full recovery. Subsequently psychotherapy was prescribed.

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