Chronic Gastric Volvulus

Ema Santos[1], Sofia Morão[2], Maria Knoblich[2], Rui Alves[2]

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A previously healthy 3-year-old female child was referred to the pediatrics outpatient clinic for marked abdominal distension and intermittent generalized abdominal pain presenting in the last few months. She had no nausea, vomiting, anorexia, or changes in bowel movements. On physical examination, the patient had a moderately distended and tympanized abdomen, with uncomfortable palpation of all quadrants, without tenderness. Stool tests were negative for parasites. No abnormalities were detected on ultrasound. The upper gastrointestinal contrast study was compatible with chronic organoaxial gastric volvulus (Fig. 1).

The patient underwent an elective laparoscopic surgery. Intraoperatively, a large stomach without an obvious gastric volvulus associated with a laxity of the gastrohepatic and gastrophrenic ligaments were found. No diaphragmatic or other abdominal organ defects were identified. A gastropexy was performed, by fixing the stomach to the anterior abdominal wall. Surgery went uneventfully and the patient is doing well.

Gastric volvulus is a rare cause of pediatric gastrointestinal obstruction,[1] characterized by the abnormal rotation of part of the stomach on one of its axis: organoaxial (axis between cardia and pylorus), mesenteroaxial (axis between large and small curvatures) or mixed.[1-4] These types can be categorized as primary/idiopathic or secondary to anatomical defects of adjacent organs.[1-4]

According to its presentation, gastric volvulus is considered to be acute or chronic.[1-3] In the majority of children with chronic gastric volvulus, the symptoms are frequently non-specific like recurrent nonbilious emesis, epigastric distention, feeding problems, growth failure, recurrent abdominal pain or respiratory symptoms[1-2] and may resemble other conditions.[1] The upper gastrointestinal contrast study is the diagnostic exam of choice,[2-3] but the computed tomography scan can be useful in doubtful cases or to detect associated abnormalities.[4] Definitive treatment is the surgical reduction of the volvulus, identification and repair of other defects, and gastropexy.[1-4]

Early diagnosis and intervention are essential to a good outcome.[3]

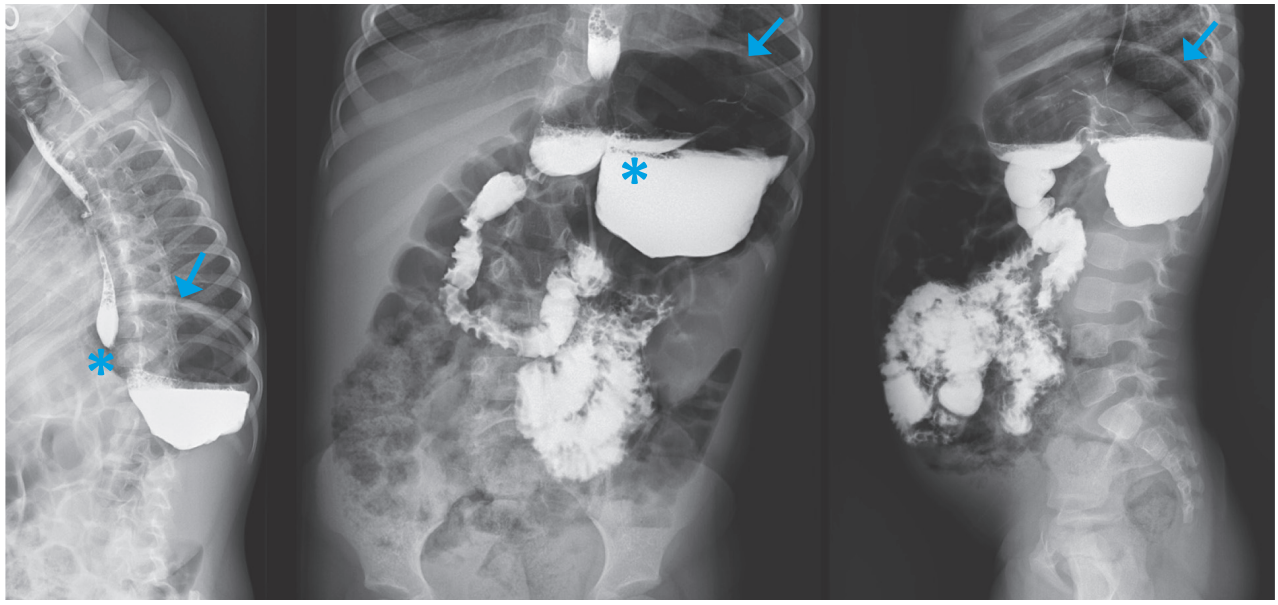

Figure 1. Upper gastrointestinal study shows a stomach in the horizontal position with the greater curvature (wide arrow) superior to the gastroesophageal junction (asterisk) consistent with organoaxial gastric volvulus.

1. Pediatric Surgery Department, Hospital Central do Funchal, Funchal, Portugal
2. Pediatric Surgery Department, Hospital de Dona Estefânia, Centro Hospitalar Universitário de Lisboa Central, Lisboa, Portugal
Corresponding Author
Ema Santos
https://orcid.org/0000-0002-2715-8604
ema_js24@hotmail.com
Serviço de Cirurgia Pediátrica, Hospital Dona Estefânia, Rua Jacinta Marto 8A, 1169-045 Lisboa, Portugal
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WHAT THIS REPORT ADDS

- Gastric volvulus is a rare cause of gastrointestinal obstruction in children.
- Chronic gastric volvulus is underdiagnosed and should be included in the differential diagnosis of children presenting with recurrent nonbilious emesis, epigastric distention, and/or failure to thrive.
- Undiagnosed chronic gastric volvulus, at some point, can become acute and irreversible.
- Early diagnosis avoids delays in the appropriate therapy and minimizes the risk of gastric ischemia and perforation that can lead to death.

Conflicts of Interest

The authors declare that there were no conflicts of interest in conducting this work.

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Confidentiality of data

The authors declare that they have followed the protocols of their work centre on the publication of patient data.

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