Case Report
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Gastric Diverticulum in the Child: Disease or Radiological Curiosity

Diverticule gastrique chez l'enfant: Maladie ou Curiosité Radiologique?

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Abstract

Gastric diverticula are rare in childhood. Usually, they are incidentally diagnosed on radiographic examination or seen in upper endoscopy. Eleven year old girl reported chronic abdominal pain with a gastric diverticulum. On the light of this case, we discuss epidemiologic, pathogenesis, diagnosis, and surgical treatment aspects. This last aspect consists of simple excision of the Diverticulum either in symptomatic or complicated forms of this pathology.

Key-words: diverticulum, stomach, child, endoscopy, surgery

Résumé

Les diverticules gastriques sont rares dans l'enfance. Habituellement, ils sont diagnostiqués incidemment au cours d'un examen radiographique ou aperçu dans l'endoscopie supérieure. Une fille âgée de onze ans s'est présentée avec une douleur abdominale chronique caractérisée par un diverticule gastrique. En fonction de ce cas, nous discutons les aspects du traitement chirurgical touchant à l'épidémiologie, à la pathogenèse et au diagnostic. ***Mots-clés:*** diverticule, estomac, enfant, endoscopie, chirurgie.

Introduction

Gastric diverticulum in child is a rare pathology and even exceptional. The diverticulum is a permanent evagination of the gastric wall which communicates with its length by a relatively wide pedicle. Its gastric localization is less frequent compared to the oesophagus and the duodenum. They are found in 4 to 5 per 10000 in autopsy series.[1] It is a disease of the adult with age range of between 50 and 60 years old, with a light feminine dominance.[2] Very few pediatric cases are reported.[3-6] In the present report discussed the epidemiologic, pathogenesis, diagnosis, and surgical treatment aspects of gastric diverticulum.

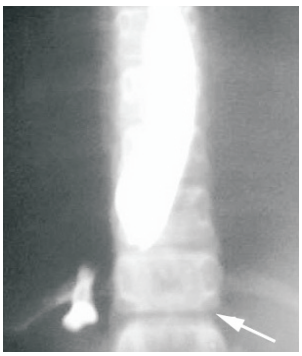


Fig. 1: Oesophagogastroduodenal transit: the arrow shows early gastric diverticulum opacification making opaque.

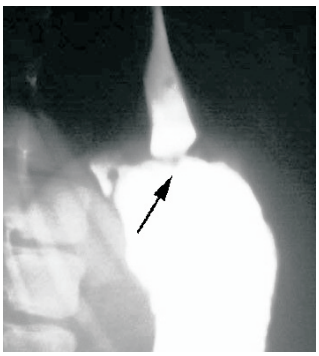


Fig. 2: Oesophagogastroduodenal transit: the arrow shows gastric diverticulum opacification in repletion of the stomach.

Case Report

An 11 year old girl presented with a year and half episode of intense epigastralgia. The pain was aggravated by hunger and relieved by food intake. There was no vomiting, transit disorders or haematemesis, but there was associated loss of weight. The clinical examination was normal; an abdominal ultrasound did not reveal any particular signs. Barium meal and follow through reveals an image of pericardial addition in the poste-rior face with big tu-berosity (Figures. 1, 2 and 3). The gastro-scopy found at retro-vision, a diverticular opening, assembled in fundus folds and sur-rounded by a normal mucous. The histology of the biopsy of the mucosa showed pre-sence of a chronic

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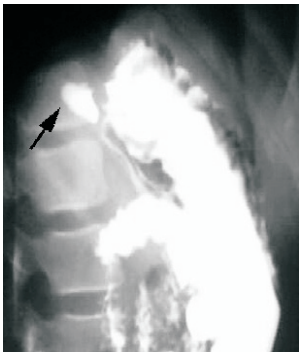


Fig. 3: Oesophagogastroduodenal transit: the arrow shows gastric diverticulum remaining opaque during the gastric draining

antral gastritis. Abdominal CT scan revealed a sacciform diverticulum of 2 cm with trap of 5 mm at the level of the posterior face of the fundus (Figure. 4).

The child later had surgical exploration as a result of intractable epigastric pain despite anti-spasmodic and anti-Helicobacter pylori

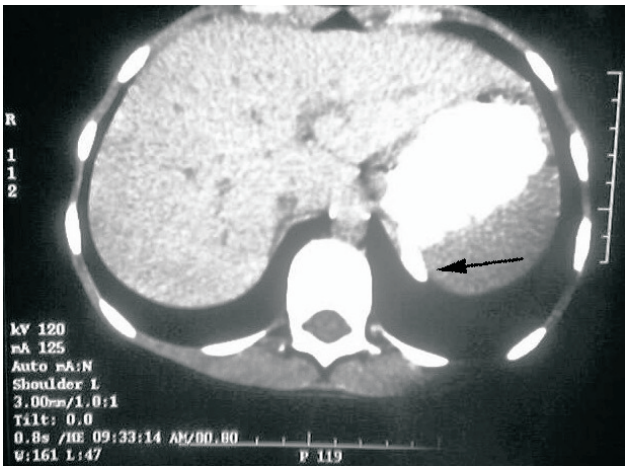


Fig. 4: Abdominal CT-scan with opacification: the arrow show the diverticulum localized in the posterior face of the stomach.

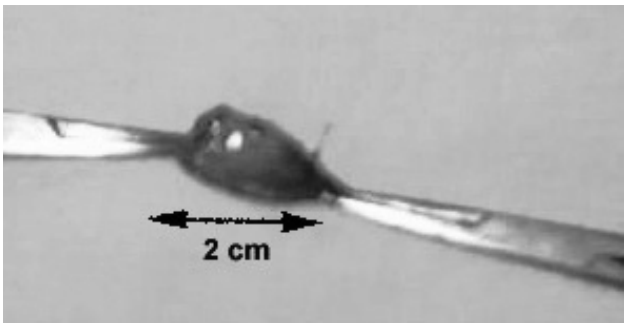


Fig. 5: Surgical entity of diverticulum

treat-ment. The intervention was performed through a cis-umbilical transverse access, A longitudinal gastrotomy on the fundus allowed visualizing the opening of the diverticulum that was gaping and shrinking at every contraction of the stomach. We evaginated and resected diverticulum (Figure. 5). The mucosa looked normal but there was no muscular coat.

A refection of the posterior plan by separate points and closing the gastrotomy were performed, the exploration through the digestive tract did not reveal any diverticula. The anatomicopathological examina-tion of the removed piece showed a gastric mucous. The child has remained strictly asymptomatic 15 months on follow up without any associated medical treatment.

Discussion

Gastric diverticula is generally asymptomatic, its discovery is a fortuitous during the high endoscopy or during the barium meal and follow through. However, non-specific symptomatologies of early postprandial dyspeptic syndrome or poor appetite, epigastric pains, digestive hemorrhage and dysphagia have been reported.[7] Gastric diverticulum may be complicated by perforation, torsion and malignant change,[8] necessi-tating emergency surgical intervention.

On plane radiology, the gastric diverticula is diagnosed by an oesophagogastric opacification which appears as an image of addition that has relatively a round form, sometimes voluminous with repletion that is sometimes early. This picture may be confused with a gastric duplication[3], a para-oesophageal hernia or ulcer in cardia characteristic of the adult.[9] Endoscopy may not diagnose the diverticula, especially when it is narrow.[7] Contrast-enhanced abdominal CT-scan is also helpful in the diagnosis of gastric diverticula.

Medical treatment is essentially symptomatic, especially in relieving pains. Diverticula discovered accidentally should be neglected. Very rare cases that are associated with a loss of weight and the invalidity incapacity or during complications would require a surgical treatment.[4,6,9] Diverticulectomy is the surgical treatment of choice. The intervention could be done via gastrostomy on greater curvature in its juxta-splenic portion if the diverticulum is found between the left diaphragmatic pillar and the spleen.[7] A trans-gastric access is recommended for avoiding any pancreatic injury during the procedure. This route allows a better localization,

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evagination and resection of the diverticulum. Authors report their first cases of adult gastric diverticula treated using laparoscopic approach.[10-12] A per-operative endoscopy is sometimes necessary to localize the lesion. No pediatric case was treated using celioscopy.

Gastric diverticulum should be considered in the differential diagnosis of recurrent abdominal pains in a child. The diagnosis is confirmed by endoscopy and CT-scan.

Simple resection of the diverticula is justified whenever the lesion is symptomatic.

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