

Letters to the Editor

A rare cause of intestinal obstruction in the adult: duodenal diaphragm

Key words: Duodenal diaphragm Duodenal benign stenosis.

Dear Editor,

Duodenal diaphragm is an uncommon disease (1:20,000-1:40,000 births). It is characterized by incomplete obstruction of the lumen, with a small hole in a diaphragm, whose pathogenesis is described as a lack of revacuolization in the solid cord stage of intestinal growth (1).

The differential diagnosis for upper gastrointestinal obstruction in the newborn includes pyloric hypertrophy, annular pancreas, duodenal atresia, Ladd bands, and mesenteric clamp.

Because these are congenital obstructive lesions at the duodenal level, the symptoms present themselves in the first few days of life, or several months later in cases of incomplete obstruction as in the case of duodenal diaphragms; being very rare in children more than one year old and extremely unusual in early childhood (1-4).

Case report

We report the case of a 61-years-old female with asthma, hypothyroidism on replacement therapy, pacemaker for 2nd degree auriculo-ventricular block and appendicitis surgery in childhood.

The patient arrived at the emergency department with acute abdominal strain, associated with early satiety, postprandial nausea and vomiting during 2-3 months. Over this time, she lost 10 kg in weight.

Physical examination revealed abdomen distended and tympanic without rebound. Abdominal X-ray shows marked gastric dilatation and duodenal (double bubble sign).

On the gastroscopy, the stomach presented absent motility and presence of food debris. The duodenum was edematous with inability to pass to the second part; biopsies were taken that reported nonspecific duodenitis with no malignant cells. The abdominal CT displayed gastric dilatation and duodenal stenosis in the 3rd part of the duodenum.

Considering these results, a barium meal test was performed, which showed three stenosis with smooth and regular margins over the second and third part of the duodenum, with difficult passage compatible with diaphragms.

With these findings, the patient was questioned again and at this point she said that she had early satiety and slow digestion, and had been very slim and of short stature.

The patient began to tolerate fluids and nutritional replenishment and was completed for surgical intervention. A Roux-en-Y gastric bypass was performed.



Fig. 1. Image of duodenal diverticulum and diaphragm in the third portion.

Discussion

Duodenal stenosis is usually presented in infants or children, in 75% of cases being the most common in third-fourth duodenal part (1,2).

The treatment of choice is resection of the diaphragm and duodenoplasty. Some authors associate vagotomy and pyloroplasty. The distal duodenum should be inspected, through a Foley catheter. Among other treatments published are bypass surgery (1-4).

The mortality in reported cases is 0%, but postoperative complications ranging up to 44% with pancreatitis, duodenal stenosis, delayed gastric emptying, infections, fluid collections, anastomotic leak, among others (1).

We present this case of diagnosis of benign duodenal stenosis in adults, for its uniqueness; only isolated cases have been reported, describing two cases of 21 and 24 year old as the most prominent known cases.

The late presentation of the symptoms in this patient is difficult to explain. It was probably due to the loss of compensatory peristaltic action of the stomach and duodenal bulb.

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