

Unfrequent Cause of Vomites in Patient with Background of Duodenal Atresia

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Abstract

The superior mesenteric artery syndrome (SMAS) is an unfrequent illness resulting from the compression and partial obstruction of the third portion of the duodenum because of superior mesenteric artery. A 16-year-old woman, with a previous record of duodenal atresia which was intervened at birth, experimented continuous vomits together with weight loss in a monthly basis. In SMA shortened distance was noticed in the angioTAC, as well as the aorta and also a dilation in the proximal duodenum. The patient was diagnosed superior mesenteric artery syndrome and was initially treated in a conservative way, with no recovering symptoms. A mechanical duodenojejunostomy was made, with a satisfying postoperative evolution.

Keywords: Duodenojejunostomy; Superior Mesenteric Artery Syndrome, High Gastrointestinal Obstruction

Introduction

The superior mesenteric artery syndrome (SMAS) is an unfrequent illness resulting from the compression and partial obstruction of the third portion of the duodenum because of superior mesenteric artery.

Case Summary

We present the case of a 16-year-old patient who was admitted for several months of vomiting and weight loss of 10 kg, refractory to conservative measures. The antecedents include a duodenal atresia operated on at birth, performing an end-to-side duodenum-duodeno-stomy.

During admission, a radiological study with esophageal-gastroduodenal contrast was carried out, observing a significant dilation of the first/second duodenal portion and an image of collapse in the third portion without alterations of the intestinal wall. Gastroscopy describes a very dilated duodenum; A wide surgical anastomosis is observed and it is advanced through the duodenum without observing stenosis.

CT angiography shows a distance between the superior mesenteric artery and the aorta of 4 mm just in the area where the midline crosses the duodenum together with a proximal duodenal dilation. Distally there is a contrast passage but without loop dilation (Figure 1 and 2).

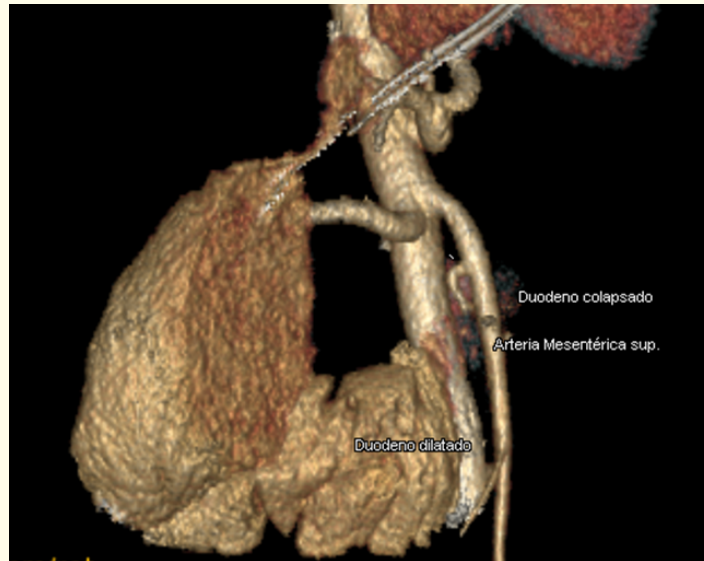


Figure 1: CT angiography reconstruction showing duodenal dilation prior to the superior mesenteric artery with distal collapse.



Figure 2: Abdominal CT: duodenal dilation up to the junction with the superior mesenteric artery.

After failure of medical treatment and the suspected diagnosis of Superior Mesenteric Artery Syndrome, surgery was indicated where we observed significant dilation of the second duodenal portion with third and fourth portions of normal caliber. Latero-lateral duodenojejunostomy (Figure 3) was performed by open surgery given the history of previous duodenal intervention, which could cause poor emptying of the food content, contributing to weight loss and could be the cause of SAMS. The postoperative evolution was uneventful.

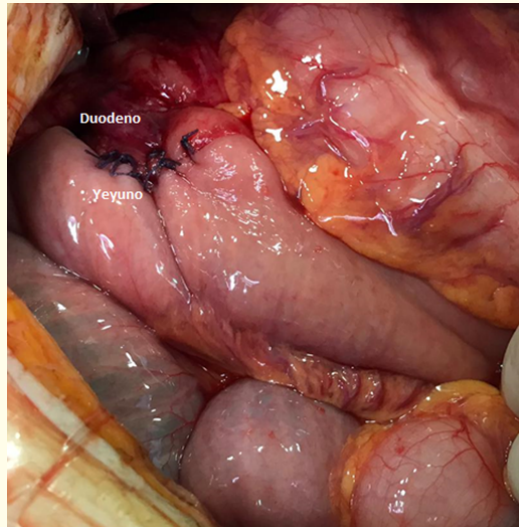


Figure 3: Anastomosis duodenojejunal.

Discussion and Conclusion

Wilkie syndrome or superior mesenteric artery syndrome (SAMS) is a rare cause of upper intestinal obstruction with an incidence of 0.2%, caused by compression of the duodenum in its third portion at the angle formed between the superior mesenteric artery (SMA) at its origin and the abdominal aorta [1,2].

It usually occurs in women and can occur at any age, although it is more common in adolescents and young adults.

Symptoms are nonspecific, and postprandial epigastric pain, abdominal distension, early satiety, nausea, and vomiting may appear. In the genupectoral position and in the left lateral decubitus, an improvement in symptoms was observed [3].

The complementary tests for the diagnosis include radiological study with esophageal-gastroduodenal contrast and CT angiography, MRI is the test with the highest sensitivity. The classic findings are dilation of the first and second portions of the duodenum with collapse of the third duodenal portion and antiperistaltic flow of barium proximal to the obstruction, delayed intestinal transit and relief of said obstruction with postural changes. Patients with Superior Mesenteric Artery Syndrome present an aortomesenteric angle of 7° - 22° and a distance between the Aorta and the Superior Mesenteric Artery of 2 to 8 mm [1,3].

Treatment is of conservative start: correction of hydroelectric and metabolic alterations, achieving correct nutrition, decompression of the gastrointestinal tract with postural maneuvers or with NGS and prokinetics [4].

Surgical intervention is indicated when conservative treatment fails or duodenal dilation is persistent and progressive [5].

Duodenojejunostomy is the technique of choice with a 90% success rate, both laparoscopically and laparotomically [6]. Associated complications are fistula and possible intestinal strictures [5].

Bibliography

1. Etxebarria Beitia E., *et al.* "Laparoscopic duodenojejunostomy as a treatment for superior mesenteric artery syndrome". *Cirugía Española* 92 (2014): 129-131.
2. Alsulaimy M., *et al.* "Laparoscopic Ladd's procedure for superior mesenteric artery syndrome". *Journal of Pediatric Surgery* 49 (2014): 1533-1535.
3. Morán Penco J., *et al.* "Un posible caso de origen congénito de síndrome de la arteria mesentérica superior (SAMS)". *Cirugía Pediátrica* 21 (2008): 228-231.
4. Sato M., *et al.* "Laparoscopic Roux-en-Y duodenojejunostomy for superior mesenteric artery syndrome in a 6-year-old girl: A case report of a new minimally surgical technique for children". *Asian Journal of Endoscopic Surgery* 7 (2014): 334-336.
5. Rosa-Jimenez F., *et al.* "Duodenal compression caused by superior mesenteric artery: study of 10 patients". *Revista Espanola de Enfermedades Digestivas* 95 (2003): 485-489.
6. Shinji S., *et al.* "Superior mesenteric artery syndrome treated with single-incision laparoscopy-assisted duodenojejunostomy". *Asian Journal of Endoscopic Surgery* 8 (2015): 67-70.
7. Fernández López MT., *et al.* "Síndrome de Wilkie: a propósito de un caso". *Nutrición Hospitalaria* 26 (2011): 1699-5198.

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