Ectopic pancreas and intestinal volvulus

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CASE REPORT

A 39-year-old man, with no previous pathology, started with epigastric pain two months ago. He described that the pain irradiated into the back and was associated with postprandial vomiting.

Due to the increased severity of the pain, the patient went to our Emergency Department and preformed complementary examinations:

1. Abdominal and pelvic computed tomography (CT) described a volvulus in the duodenal–jejunal transition with evidence of intestinal malrotation with the corkscrew sign (Figure 1A); inversion of the superior mesenteric vein and artery (Figure 1B); complete abdominal rotation with the colon on the right and the Treitz also on the right (Figure 1C). These findings were associated with duodenal and gastric dilation upstream. There was also the presence of a nodular lesion at the pyloric region with nearly 22 mm (Figure 2).

2. Upper endoscopy: presence of a polypoid mass with a central umbilicus localized in the great curvature of the prepyloric region.

Figure 1: (A) Contrast CT. The corkscrew sign with intestinal malrotation. (B) The corkscrew sign with inversion of the duodenal–jejunal. (C) Complete rotation with the colon on the right.
This patient was proposed to surgical treatment and during the surgery there were the following findings:

- Malrotation of the small bowel with the Treitz on the right; torsion of the first jejunal loop due to the presence of fibroelastic and subserosal tumefaction with approximately 3 cm localized within the mesenteric side of the jejunum. The surgeons proceeded to the untwist of the small bowel and a segmentar enterectomy in the place where the lesion was localized.
- Histology described a submucosal nodule compatible with an ectopic pancreas without sign of malignant cells.

DISCUSSION

The ectopic pancreas is defined by the presence of pancreatic tissue outside its normal position without vascular or anatomic continuity with the body of the pancreatic gland [1]. This is a very rare congenital anomaly, with an estimated incidence of 0.6–13.7% in the world population [1, 2].

In the majority of the cases this condition is asymptomatic and only diagnosed when performing a laparotomy. The most common symptom is the presence of abdominal pain due to the irritating action of the pancreatic enzymes. In this particular case, the patient had a clinical picture compatible with an intestinal occlusion. This usually is associated with a greater amount of ectopic tissue, superior to 1.5 cm [3].

The most frequent location is at the gastric, duodenum or jejunum submucosa.

Diagnosing this pathology can be very challenging due to the similar behavior of tumor lesions. Surgical resection is always indicated. The definitive diagnosis can only be established after histological analysis [1–3].

There are very rare cases where this kind of lesion appears at the subserosal level, presenting as a focal, spheric formation at the duodenojejunal junction which was responsible for the intestinal malrotation and occlusion of the bowel in this case.

CONCLUSION

This is a very particular case in which the patient had two locations of ectopic pancreatic tissue: one was at the stomach (submucosal, recognized as the "vulcano sign") and the other one was subserosal in the transition of the duodenum to the jejunum. The latest was responsible for the intestinal malrotation.

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