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Intestinal obstruction secondary to Brunner's glands hyperplasia

Abecia Martínez[2], Carlos Hörndler Argárate[2], Sonia Cantín Blázquez[1], Rafael Cerdán Pascual[1], Luis Antonio Ligorred Padilla[1]

Departments of [1]Surgery and [2]Pathology. Hospital Universitario Miguel Servet. Zaragoza, Spain

Correspondence: Daniel Aparicio López
e-mail: dani_9_93@hotmail.com
ORCID: 0000-0003-4541-1834

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Dear Editor,

We present the case of a 48-year-old patient who reported occasional vomiting and hyporexia of six months evolution. Thus, a study was started to detect and eradicate *Helicobacter pylori.* Without having completed the treatment, she consulted to the Emergency Room (ER) due to sudden abdominal pain. Computed tomography (CT) revealed pneumoperitoneum secondary to a perforated peptic ulcer, requiring an urgent intervention, performing laparoscopic primary suture. The postoperative period was favorable, and the patient was discharged on the 5th day. In subsequent follow-up, she referred symptomatic persistence, presenting again to the ER due to exacerbation of symptoms. A thoraco-abdomino-pelvic CT revealed severe dilation of the gastric chamber secondary to pyloric stenosis. A gastroscopy and echoendoscopy were performed, identifying impassable pyloric stenosis and erosive gastritis, with inconclusive biopsies to rule out malignancy. Given the impossibility of ruling out a

neoplastic process with certainty, surgical resection was decided. An antrectomy and resection of the first portion of the duodenum, truncal vagotomy and Roux-en-Y reconstruction were performed. On the 3rd day, she presented gastrointestinal bleeding secondary to bleeding from the jejuno-jejunal anastomosis, which was re-operated with resection and new anastomosis. Subsequently, the postoperative period passed favorably. The pathology study revealed hyperplasia of Brunner's glands (1.5 x 1.5 cm) with secondary hypertrophy of the pyloric muscle layer (Fig. 1).

Discussion

Brunner's glands, described in 1688, are glands of the duodenal submucosa whose main function is to secrete alkaline-based mucus to protect against gastric acid. Brunner's gland hyperplasia constitutes 10.6 % of benign tumors of the duodenum, with an incidence of 0.008 %. It is usually an incidental finding during endoscopy or imaging tests as it is small (7-120 mm) and asymptomatic (1,2). However, a large mass (> 20 mm) can cause significant symptoms: gastrointestinal bleeding, abdominal pain, intestinal obstruction and recurrent pancreatitis. It is difficult to establish a preoperative diagnosis of certainty since endoscopy and CT have limitations due to their non-specific characteristics, improving sensitivity with echoendoscopy. Therefore, the diagnosis usually occurs after exeresis. In the case of symptomatic tumors, resection of the lesion is indicated. In lesions ≤ 2 cm, endoscopic resection can be chosen. Surgery is reserved for lesions that are larger or are inaccessible endoscopically (2-5).

In summary, Brunner's gland hyperplasia is an infrequent and usually asymptomatic duodenal lesion, which must be considered as a differential diagnosis when a stricturing lesion or digestive bleed is found.

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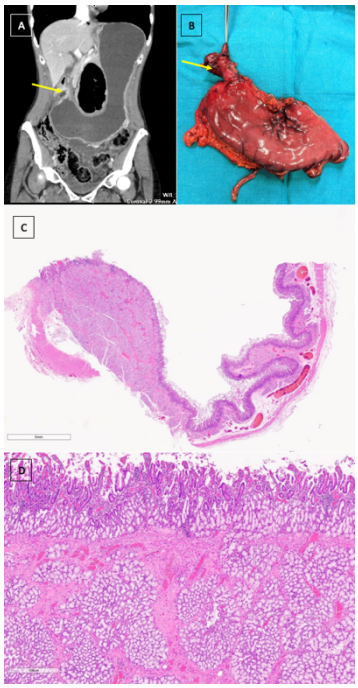

Fig. 1. A. Coronal abdominal computed tomography image showing marked gastric dilatation secondary to pyloric stenosis (yellow arrow). B. Antrectomy specimen, fresh, identifying pyloric stenosis in the first duodenal portion (yellow arrow) with retrograde dilatation of the gastric body, with clinical-radiological correspondence (A and B). C. Microscopic study: Brunner's gland lobes separated by fibrous septa, which extend from the submucosa towards the mucosal surface with protrusion (hematoxylin and eosin). D. Microscopic study: increase in the number of Brunner's glands, made up of cuboidal to columnar mucinous cells with basal nuclei without atypia (hematoxylin and eosin).