



Gastrogastric intussusception and acute pancreatitis caused by a large pyloric gland adenoma treated with endoscopic submucosal dissection

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CASE

A 75-year-old woman presented to the emergency department with syncope, nausea, vomiting, and abdominal pain. She had been experiencing intermittent postprandial nausea and vomiting for several weeks. A CT scan of the abdomen and pelvis revealed gastric outlet obstruction secondary to gastrogastric intussusception from a 5-cm mass extending into the proximal duodenum (Fig. 1; Video 1, available online at www.videogie.org). In addition, the patient had pancreatitis, which was attributed to the intussuscepted gastric mass causing obstruction of the ampulla.

During upper endoscopy, the mass was observed prolapsing into the duodenum (Fig. 2A). However, with insufflation, the intussusception spontaneously resolved (Fig. 2B). The lesion seen along the greater curve of the proximal body had a Paris 1sp morphology. The background body mucosa displayed panatrophy, indicative of autoimmune atrophic gastritis.

Radial EUS demonstrated a second-layer lesion without evidence of muscularis propria involvement. There were 3 main reasons for choosing endoscopic submucosal dissection (ESD) over EMR for management:

1. Oncologic: Gastric adenomatous lesions greater than 2 cm have significant risk of carcinoma. This lesion was 5 to 6 cm.
2. Hemostatic: With ESD, much more precise cutting is possible, along with the ability to perform hemostasis on vessels. In contrast, EMR involves transecting a large area rapidly without much precision.
3. Perforation risk: Considering that this lesion caused intussusception and was quite bulky, it was believed that EMR would be less safe. In some cases, areas thought to be

pedunculated when snared can lead to significant perforations in EMR. However, with ESD's higher precision, if an incorrect plane is noted and a small perforation occurs, it can be easily closed.

The patient underwent ESD using a 2-mm FlushKnife BTs (Fujifilm, Tokyo, Japan) and multipoint traction (Fig. 2C).¹ The ERBE VIO 3 (Tübingen, Germany) was used with preciseSECT effect 4.0 and ENDO CUTI effect 2, duration 2, interval 2. The lesion was successfully removed en bloc; however, because of its substantial size, it fragmented during the process of being pulled across the esophagogastric junction. Fortunately, the fragmentation occurred at the friable head of the lesion rather than at the base, thus not impairing margin assessment. The patient was discharged in 48 hours without issue. The final pathology was pyloric gland adenoma with high-grade dysplasia that was completely excised (Fig. 2D).

CONCLUSIONS

This case of gastrogastric intussusception, causing gastric outlet obstruction and acute pancreatitis secondary to a large pyloric gland adenoma, highlights several rare clinical entities. First, gastrogastric intussusception in adults is an exceptionally rare phenomenon, with only a few documented cases reported in the literature. Second, in the case of large gastric neoplasms causing intussusception, rarely the neoplasm may extend down into the duodenum and obstruct the ampulla of Vater causing acute pancreatitis.² Furthermore, pyloric gland adenomas are rare gastric neoplasms that tend to be polypoid in morphology and are associated with autoimmune gastritis, predominantly occurring in female patients, as in this case.³ Lastly, the traditional management for lesions causing gastroduodenal intussusception is surgical because of the risk of malignancy. However, in this case, the patient underwent successful curative and therapeutic endoscopic resection with ESD.²

DISCLOSURE

Dr Bechara is an endoscopic consultant for Olympus, Pentax, Vantage, and Pendopharm. All other authors did not disclose any financial relationships.

Abbreviation: ESD, endoscopic submucosal dissection.

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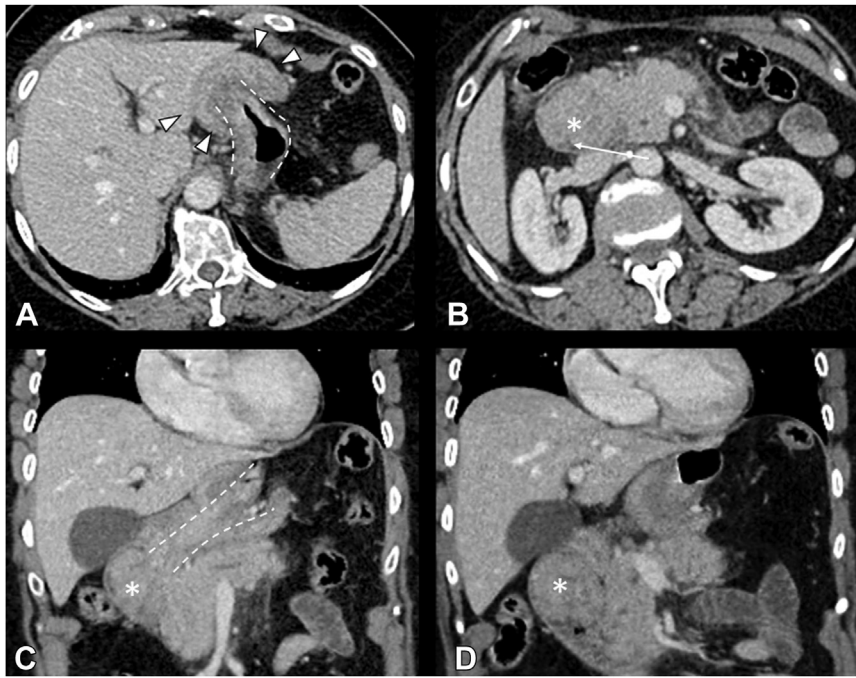


Figure 1. Contrast-enhanced CT scan of the abdomen and pelvis. Axial images: **A**, Gastrogastric intussusception with the intussusceptum (*dashed line*) telescoping into the intussusciptens (*arrowheads*). **B**, Lobulated mass (*asterisk*) serving as the lead point for the intussusception. Small-volume fluid (*arrow*) delineates the mass from the wall of the duodenum. Coronal images: **C**, Redemonstration of long-segment intussusception (*dashed line*) with lobulated mass (*asterisk*) serving as the lead point and extending into the proximal duodenum. **D**, Lobulated mass (*asterisk*) occupying and expanding the duodenal lumen.

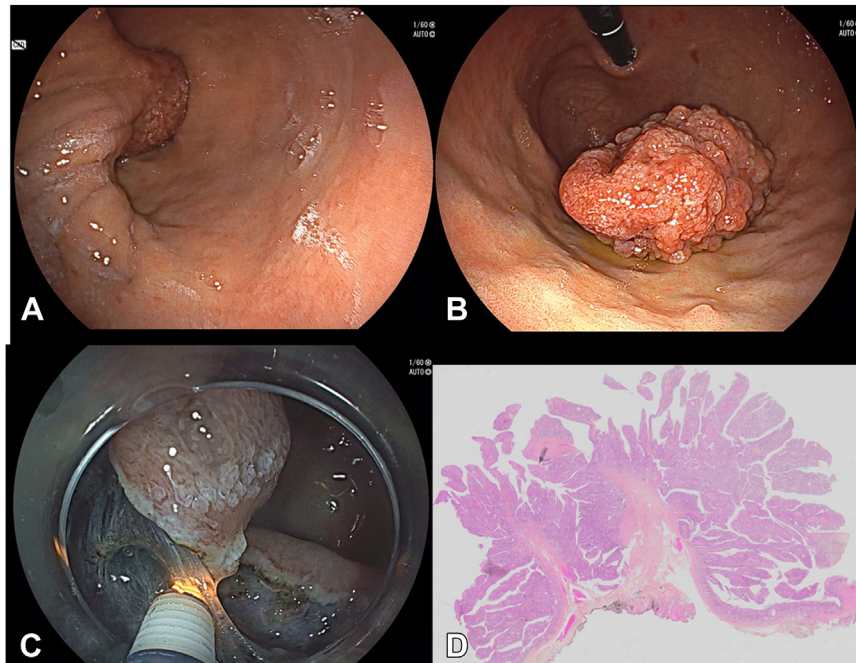


Figure 2. **A**, Endoscopic image showing gastric wall intussusception with the adenoma protruding into the duodenum. **B**, Retroflexed view revealing the pyloric gland adenoma along the greater curve after reduction by air insufflation. **C**, Endoscopic submucosal dissection. **D**, Low-power view of the pyloric gland adenoma stained with hematoxylin phloxine saffron (orig. mag. $\times 100$).

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