ACG CASE REPORTS JOURNAL

VIDEO | ENDOSCOPY

Deroofing and Excision of Duodenal Duplication Cyst

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CASE REPORT

A 34-year-old woman presented to us with a 7-month history of recurrent postprandial epigastric pain and bilious vomiting. There was no history of jaundice, abdominal distension, or gastrointestinal bleeding. Her abdominal examination was unremarkable. Except for anemia (hemoglobin 9.8 g/dL), her other laboratory parameters were normal. Contrast-enhanced computed tomography and magnetic resonance imaging of the abdomen (Video 1; watch the video at http://links.lww.com/ACGCR/A14) revealed an intraluminal cystic polypoidal mass, causing moderate luminal narrowing of the second part of the duodenum. The pedicle of the mass was near the ampulla, causing dilatation of both the bile and pancreatic ducts. Because gastroscopy could not delineate the mass in its entirety, duodenoscopy and endoultrasonography were performed (Figure 1). The polypoidal mass was confirmed to be a multilayered anechoic mass, arising from the second part of the duodenum. The muscularis propria of the cyst appeared to be continuous with the muscularis propria of the duodenum, suggesting a duodenal duplication cyst (DC) (Video 1; watch the video at http://links.lww.com/ACGCR/A14). Because the patient declined surgical excision despite being symptomatic with the DC, the cyst was excised endoscopically. Using duodenoscopy, a linear incision was made over the cyst with a needle-knife sphincterotome. This was followed by complete excision of the cyst using a polypectomy snare. Injection of 1:10,000 epinephrine was performed for hemostasis of minimal intraprocedural bleeding. Histopathology of the resected specimen was consistent with the DC (Figure 2). At the 1-month follow-up, she was asymptomatic and a repeat duodenoscopy showed no residual lesion at the ampulla (Figure 3).

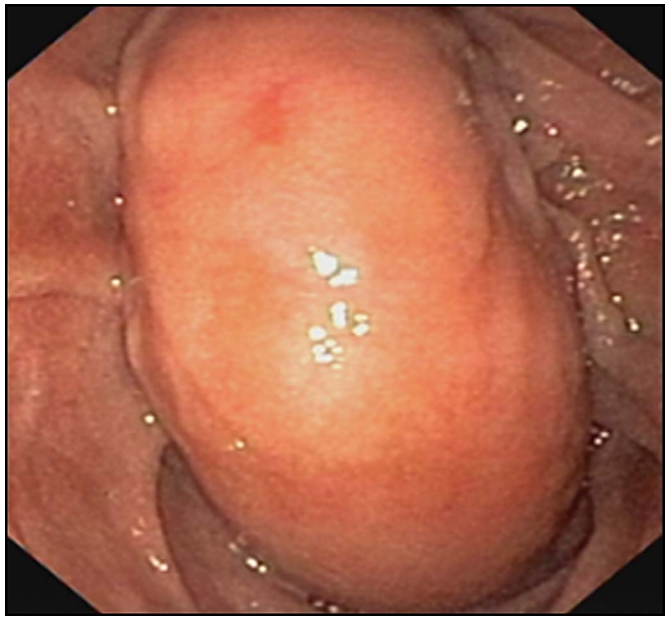

Figure 1. Side-viewing duodenoscopy showing a large cystic polypoidal mass in the medial wall of the second part of the duodenum.

ACG Case Rep J 2019;6:e00224. doi:10.14309/crj.0000000000000224. Published online: November 4, 2019

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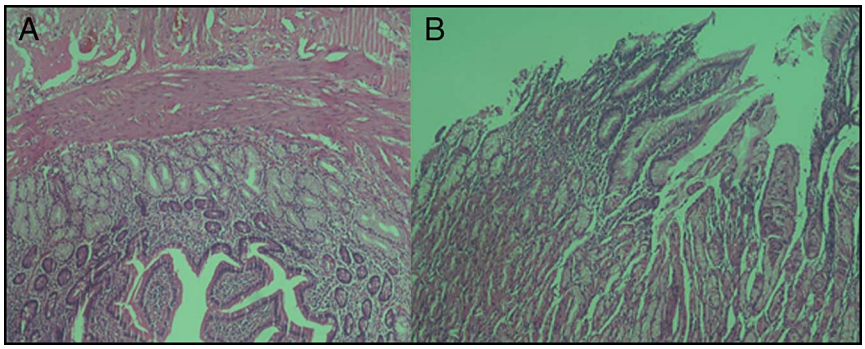

Figure 2. Histopathology of the resected specimen showing cystic lesion partly lined by (A) duodenal mucosa and (B) gastric type of mucosa.

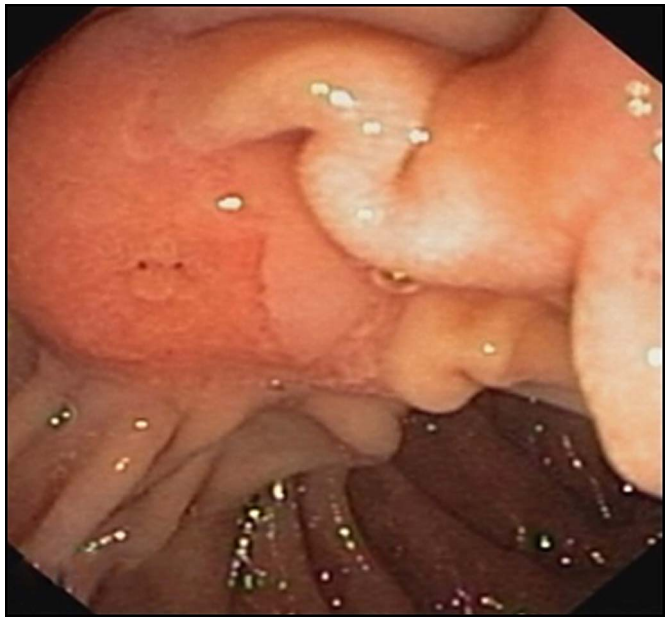

Figure 3. Side-viewing duodenoscopy 1 month after excision showing no residual cystic lesion at the ampulla.

Video 1. Contrast-enhanced computed tomography and magnetic resonance imaging of the abdomen showing an intraluminal cystic polypoidal mass, causing moderate luminal narrowing of the second part of the duodenum. Watch the video: http://links.lww.com/ACGCR/A14.

Gastrointestinal DCs are rare congenital gastrointestinal malformations, broadly categorized as foregut, small bowel, and large bowel DCs. Duodenal DCs are the least common among small bowel DCs and are diagnosed mostly during infancy and childhood. In 38 % of the patients, diagnosis is made after the age of 20.[1]

Duodenal DCs are usually asymptomatic but may manifest with abdominal pain and vomiting. Complications of DCs include recurrent pancreatitis, infection, perforation, gastrointestinal bleeding, or malignant transformation. The differential diagnosis of DC includes choledochal cyst or choledochocele. Choledochal cyst is characterized by a cystic bulge proximal to papilla and cystic dilatation of the bile duct. Endoultrasonography helps not only to confirm the diagnosis but also to differentiate a DC from a choledochal cyst.[2] Surgical excision of a DC is usually advocated because of their malignant potential. However, surgical treatment is associated with higher morbidity and mortality compared with endoscopic therapy. Thus, endoscopic treatment is safe and effective for intraluminal duodenal DC in the hands of expert endoscopists.[3]

DISCLOSURES

Author contributions: C. Thoguluva Seshadri performed the endoscopy procedure. G. Bollu Janakan edited the video. S. Suriyanarayanan and RY Kalamegam wrote the manuscript. V. Thoguluva Chandrasekar revised the manuscript. C. Thoguluva Seshadri is the article guarantor.

Financial disclosure: None to report.

Informed consent was obtained for this case report.

Received February 8, 2019; Accepted August 9, 2019

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