Received: 24 December 2018 | Revised: 26 June 2019 | Accepted: 27 June 2019

DOI: 10.1002/ccr3.2327

CLINICAL IMAGE

Clinical Case Reports Open Access WILEY

Recurrent acute pancreatitis caused by duodenal duplication cyst in a young patient

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Abstract

Duodenal duplication cyst is a rare congenital anomaly that develops during the embryonic stage and could remain unknown until the adult age. Although often asymptomatic, duodenal duplication cysts can lead to various clinical scenarios with different degree of severity, from nonspecific abdominal pain up to cholestasis, intussusception or pancreatitis.

KEYWORDS

duodenum, duplication cyst, magnetic resonance cholangiopancreatography, magnetic resonance imaging

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A 15-year-old female patient was referred to our hospital with a suspicion of acute pancreatitis and a previous clinical history of early satiety with postprandial fullness, epigastric pain, nausea, and several vomit episodes.

Since ultrasonography was not conclusive due to intestinal gas distension, the patient underwent magnetic resonance cholangiopancreatography (MRCP), which showed a fluid-filled lesion (28 mm) arising from the medial duodenal wall and protruding into the duodenal lumen, consistent with a duodenal duplication cyst (DDC) (Figures 1-3).

The patient underwent endoscopic marsupialization of the cyst, whose volume reduction was confirmed by a three-month follow-up MRCP (Figure 4).

Duplication cysts of the gastrointestinal tract are rare congenital anomalies, which develop during embryonic life, usually involving, in descending order, jejunum (50%), ileum (44%), esophagus (10%-15%), colon (7%), and stomach (4%-9%).[1]

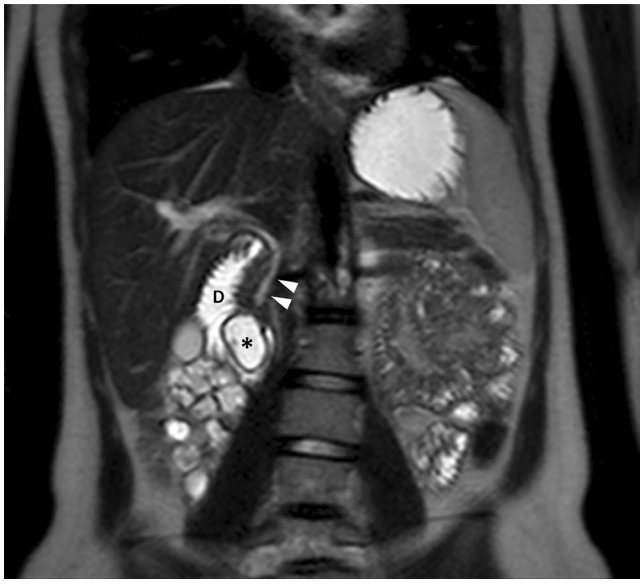

FIGURE 1 Coronal T2-w TSE scan demonstrates the DDC (asterisk) arising from the medial duodenal wall and protruding into the duodenal lumen (D). The common bile duct (arrowheads) is also visible

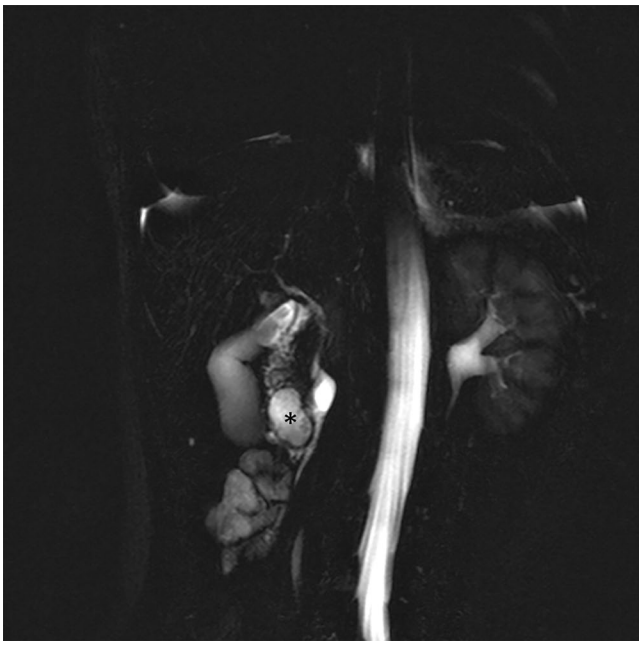

FIGURE 2 Coronal tick-slab 3D T2-w TSE RARE image clearly demonstrates the DDC (asterisk) within the duodenal lumen

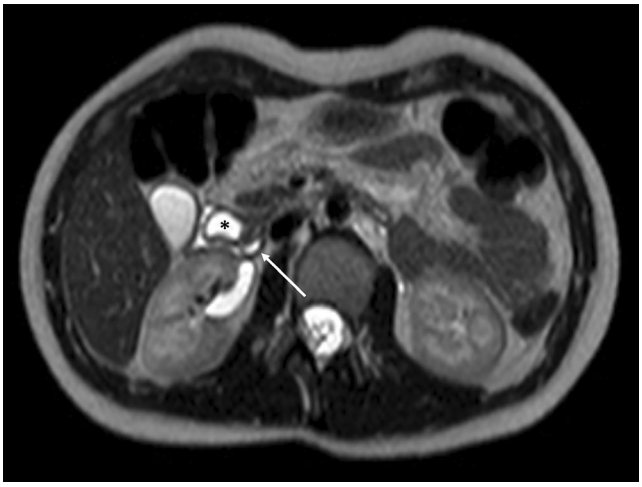

FIGURE 3 Axial T2-w TSE scan shows the DDC (asterisk). The common bile duct joins the Wirsung duct posteriorly to the cyst (arrows), allowing the differentiation of DDC from "type III" choledochal cyst

As regards the radiological differential diagnosis, duodenal diverticula, and pancreatic pseudocyst can be respectively ruled out due to the lack of a connection with the duodenal lumen and an ab extrinseco compression of the duodenum.

Although more challenging, a misdiagnosis of choledochocele should be avoided due to the lack of communication with the biliary three.

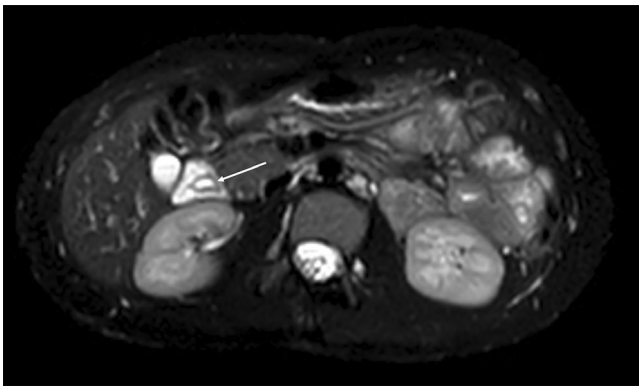

FIGURE 4 Axial T2-w SPAIR scan performed three months after endoscopic marsupialization of the cyst. The DDC is significantly decreased in volume (arrow), without any compression on biliary or pancreatic ducts. The patient has been without symptoms for three months since the endoscopic intervention

After the histological confirm, DDCs are generally managed with surgical intervention through radical or partial resection.[2]

AUTHOR CONTRIBUTIONS

GC: drafted and reviewed the manuscript. FC: participated in manuscript writing. UB: reviewed the literature. VA: collected the images. SM: conceived the idea, reviewed and accepted the final version of the manuscript.

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How to cite this article: Cicero G, Catanzariti F, Barbaro U, Ascenti V, Mazziotti S. Recurrent acute pancreatitis caused by duodenal duplication cyst in a young patient. *Clin Case Rep*. 2019;7:1802–1803. https://doi.org/10.1002/ccr3.2327