Duodenal Duplication Cyst in Adulthood: Case Report and Brief Review of Literature

Quisto de Duplicação Duodenal no Adulto: Caso Clínico e Breve Revisão da Literatura

Keywords: Adult; Cysts; Duodenal Diseases; Duodenum/abnormalities
Palavras-chave: Adulto; Doenças Duodenais; Duodeno/anomalias congénitas; Quistos

Dear Editor,

Duodenal duplication cysts (DDC) account for 2% - 12% of all intestinal duplications. Its incidence is below 1 in 100 000 live births. They are typically cystic, non-communicating, and located at the medial border of the second part of the duodenum.[1]

Diagnosis is usually made in childhood, but up to one-third of cases may be found in the adult population, because the clinical presentation is variable.[2]

Common symptoms include upper abdominal pain, nausea, and vomiting, but the first episode of DDC can be a complication rather than the typical symptoms.[3] Complications such as acute pancreatitis, obstructive jaundice, luminal obstruction, gastrointestinal bleeding and infection have been reported.[1,3] Therefore, due to the heterogeneous clinical presentation, the diagnosis may be challenging, and imaging and endoscopy play crucial roles in identifying DDC.[4]

We report the case of a 45-year-old male patient with recurrent abdominal pain and cholestasis [aspartate transaminase 425 U/L (normal < 35 U/L); alanine transaminase 221 U/L (normal < 45 U/L); total bilirubin 3.2 mg/dL (normal 0.2 – 1.2 mg/dL)]. A duodenal lesion was detected using an abdominal computerized tomography scan. Further investigations including upper gastrointestinal endoscopy, endoscopic ultrasound, and magnetic resonance cholangiopancreatography confirmed a 50 mm oval and subepithelial lesion, with intracystic lithiasis, occupying two thirds of the duodenum lumen and involving the major duodenal papilla (MDP) (Fig. 1A). Following a multidisciplinary group discussion, a suspected diagnosis of Todani's type III choledochal cyst (CC) or DDC was raised, since DDC is lined by duodenal mucosa and is proximal to the MDP and CC is covered by biliary epithelium and is distal to the MDP. The final decision was surgical partial resection and marsupialization, considering the size of lesion and the proximity of biliary ducts (Fig. 1B).

Asymptomatic DDC cases are usually managed conservatively, although some authors advocate for excision. The approach to excision can be either endoscopic or surgical.[4]

The classical treatment for DDC has involved surgical management, encompassing total or partial resection or pancreaticoduodenectomy.[1] However, there has been an increase in the number of patients being treated endoscopically, which signalled a shift in the treatment paradigm.[5] When endoscopy cannot visualize the entire cyst, its relationship to surrounding structures is complex or the risk of malignant transformation is higher, surgery should be performed.[4,5]

The definitive diagnosis was established through histopathologic examination, which confirmed a DDC.

In conclusion, DDC are rare, and their diagnosis and treatment are difficult. It is crucial to be aware of this condition as a potential differential diagnosis for patients with abdominal symptoms.

AUTHOR CONTRIBUTIONS

CL, ON, MR: Study design, writing and critical review of the manuscript.

AP: Critical review of the manuscript.

JGT: Study design and critical review of the manuscript.

All authors approved the final version to be published.

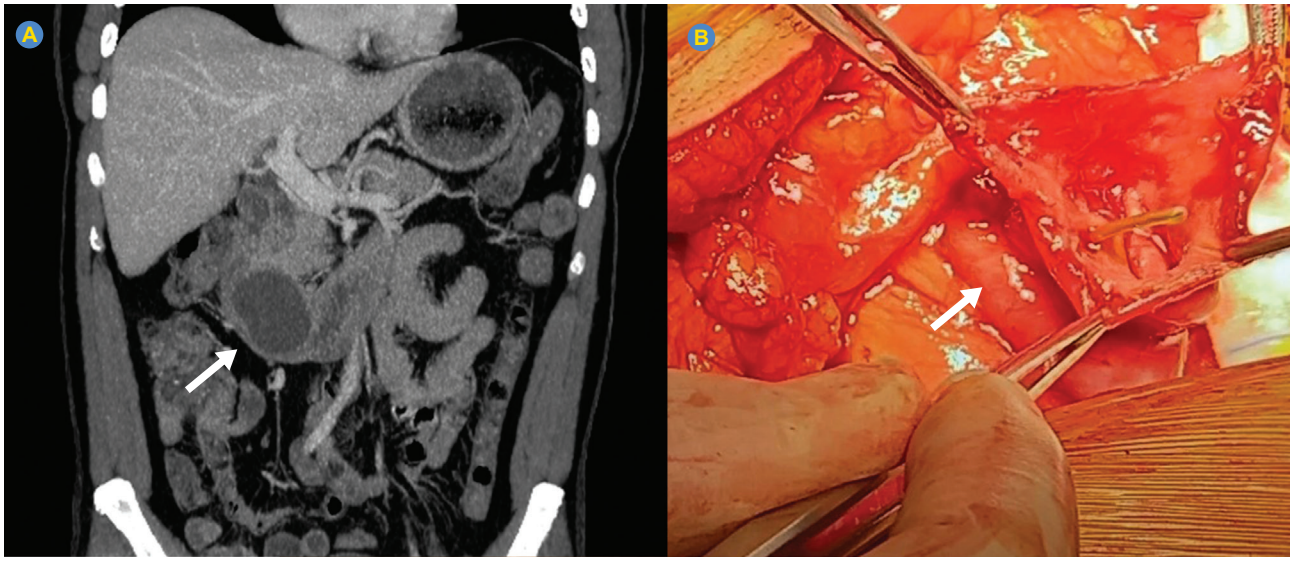

Figure 1 – Cystic lesion in the second portion of the duodenum (white arrow) – abdominal computerized tomography scan (A); intraoperative image of DDC after its incision, removal of biliary stones, identification, and cannulisation of true MDP inside the DDC (B).

PROTECTION OF HUMANS AND ANIMALS

The authors declare that the procedures were followed according to the regulations established by the Clinical Research and Ethics Committee and to the Helsinki Declaration of the World Medical Association updated in 2013.

DATA CONFIDENTIALITY

The authors declare having followed the protocols in use at their working center regarding patients' data publication.

PATIENT CONSENT

Obtained.

COMPETING INTERESTS

The authors have declared that no competing interests exist.

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