Endoscopic treatment of a duodenal duplication cyst

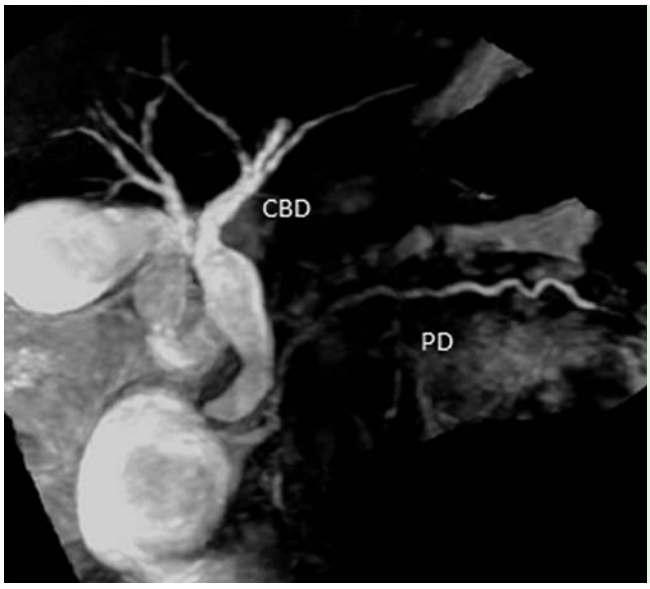

Fig. 1 Magnetic resonance cholangiopancreatography (MRCP) showing a clearly demarcated, smooth-walled cystic lesion in proximity to the distal end of the common bile duct (CBD) and main pancreatic duct (PD), and closely related to the second part of the duodenum, suggesting an intraduodenal location.

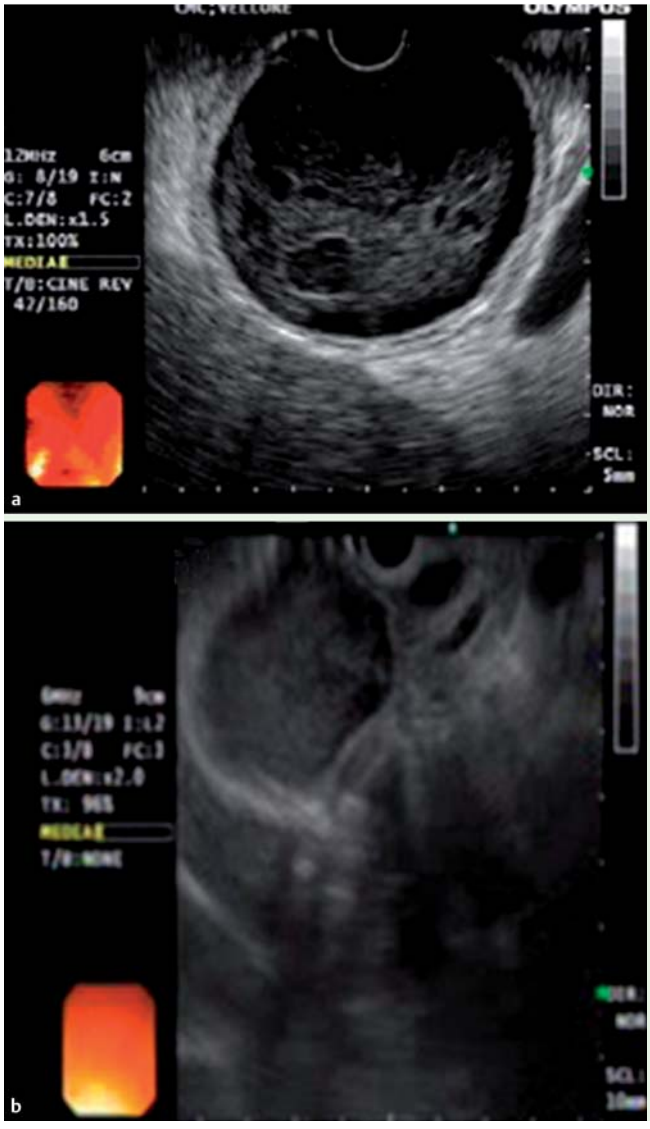

Fig. 3 Radial and linear endoscopic ultrasound (EUS) images showing a cystic lesion in the second part of duodenum containing heterogeneous material, with a layered appearance suggestive of bowel wall.

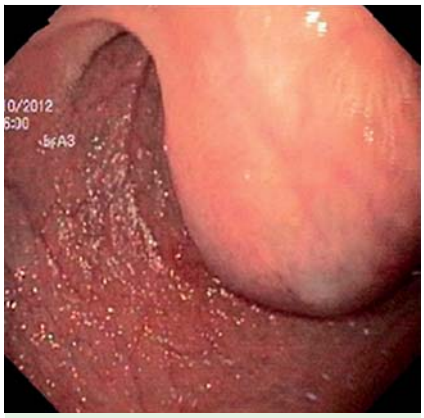

Fig. 2 Endoscopic image showing a submucosal bulge in the second part of duodenum.

A young lady presented to the emergency department with pain in the abdomen for 1 day. She had a history of similar pain in the past. Her clinical examination was unremarkable, except for mild abdominal tenderness. Further investigations suggested diagnoses of acute pancreatitis and a duodenal cyst. Magnetic resonance cholangiopancreatography (MRCP) revealed a cystic lesion in the duodenum in close proximity to the common bile duct (CBD) and the main pancreatic duct (MPD) (**Fig. 1** and **Fig. 2**). The patient improved with supportive care.

An endoscopic ultrasound (EUS), performed after recovery, revealed a cystic lesion with typical layered appearance suggestive of bowel wall in the second part of duodenum. The CBD and MPD were proximal to the lesion (**Fig. 3**). There were no vessels in the wall or within the cystic lesion. The findings suggested a duodenal duplication cyst. The patient declined surgery and opted to undergo endoscopic drainage. The procedure is shown in **Video 1**.

An attempt was made to deroof the cyst using an oval snare (SJQ-29-2 Jumbo; Cook Medical Systems, Winston-Salem, North Carolina, USA). The snare could only be applied over part of the cyst wall, which led to only partial deroofing without drainage. The cyst wall was then punctured with a cystotome (Cook Medical Systems). The current was supplied with the Endocut I mode (Erbe Medical Systems, Tübingen, Germany; duration 3 seconds/interval 3 seconds). A guidewire was placed into the cyst and the cyst wall was

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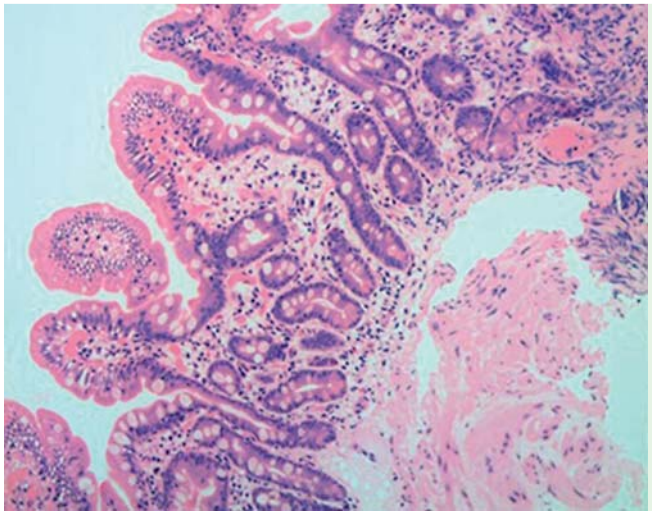

Fig. 4 Histology of a biopsy taken from the opened cyst cavity showing normal duodenal mucosa.

deroofed using a sphincterotome (Clevercut; Olympus, Tokyo, Japan). The opening was further widened using a 15-mm controlled radial expansion (CRE) balloon (Boston Scientific, Natick, Massachusetts, USA) and the contents were allowed to drain out. A biopsy taken from the open cyst cavity revealed normal duodenal mucosa (**Fig. 4**). At follow-up, the patient was doing well.

Duplication cysts are rare congenital abnormalities. Only 2%–12% are found in the duodenum [1]. Duodenal duplication cysts can occur at any age and are found equally in both sexes [2]. The most common symptoms are abdominal pain and pancreatitis; however, asymptomatic duodenal duplication cysts have also been reported [3]. Concern about malignant change makes surgery the preferred management choice [4]. Endoscopic drainage of the duodenal cysts with regular follow-up is a safe alternative; however, bleeding, perforation of the duodenum, and pancreatitis are potential complications [2].

Video 1

Deroofing and drainage of the duodenal duplication cyst.

Endoscopy_UCTN_Code_TTT_1AS_2AD

Competing interests: None

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References

1 *Chen J-J, Lee H-C, Yeung C-Y* et al. Meta-analysis: the clinical features of the duodenal duplication cyst. J Pediatr Surg 2010; 45: 1598–1606
2 *Antaki F, Tringali A, Deprez P* et al. A case series of symptomatic intraluminal duodenal duplication cysts: presentation, endoscopic therapy, and long-term outcome (with video). Gastrointest Endosc 2008; 67: 163–168
3 *Koh CC, Wang NL, Lee HC* et al. Infected congenital splenic cyst associated with duodenal duplication cyst and malrotation – a case report. J Pediatr Surg 2007; 42: e21–e22
4 *Seeliger B, Piardi T, Marzano E* et al. Duodenal duplication cyst: a potentially malignant disease. Ann Surg Oncol 2012; 19: 3753–3754

Bibliography

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