

# Choledochoceles Type B

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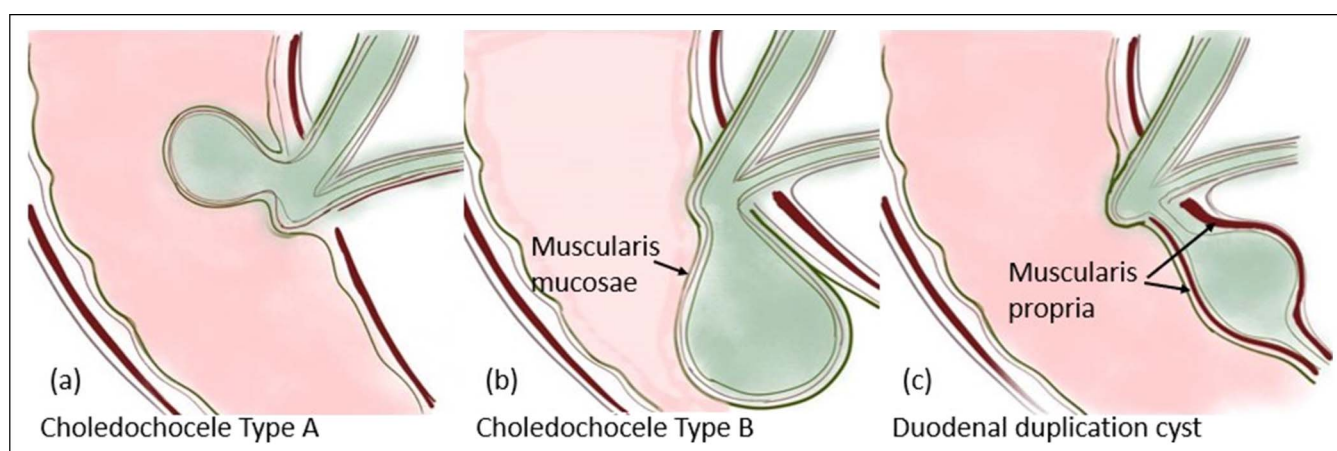
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## CASE REPORT

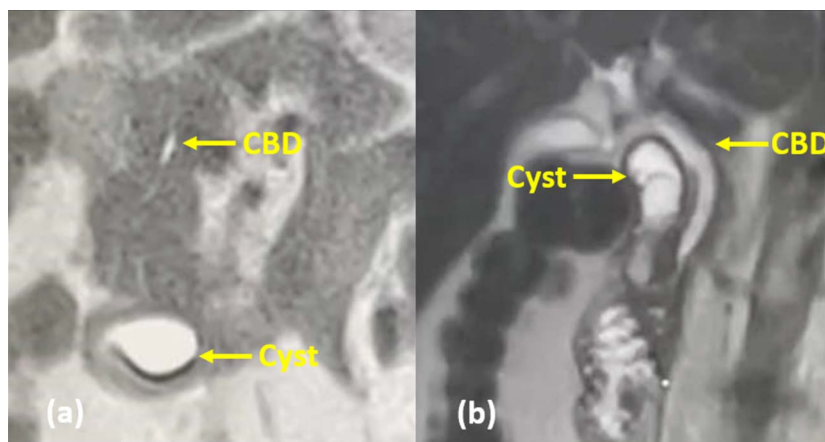
Periampullary cystic lesions can be choledochoceles or duodenal duplication cysts (Figure 1). Choledochoceles are cystic dilatation of the intraduodenal portion of common bile duct. These are further divided as type A and type B.<sup>1</sup> We describe a case of type B choledochoceles.

A 64-year-old man with no comorbidities presented with abdominal pain for 1 day. Abdominal examination was normal. Blood investigations showed mild transaminase. Abdominal ultrasound showed a dilated common bile duct measuring 11 mm. Gall bladder and pancreas were normal. Endoscopic ultrasound showed choledochoceles type B (Video 1). Magnetic resonance cholangiopancreatography demonstrated communication of cyst with a common channel and a mobile cyst (Figure 2). An endoloop was applied at the base of the cyst. Care was taken while endoloop application to keep it away from the major papilla (Figure 3, Video 2). It was followed by snare excision of cyst (Video 2). The cyst was lined by duodenal mucosa on the outer surface and biliary epithelium on the inner surface with a smooth muscle layer in between. At 3-month follow-up, the patient was asymptomatic.

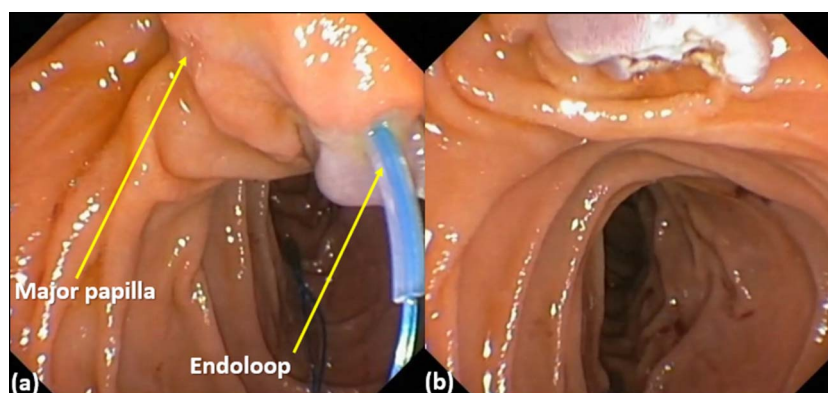
The clinical presentations, imaging findings, and management of periampullary cystic lesions are presented in Table 1. On endoscopic ultrasound, choledochoceles type B cyst is seen separate from the duodenal muscle layers while in duodenal duplication cyst, the muscle layer in the cyst wall is seen in continuity with the duodenal muscle layer. The wall of duodenal duplication cyst shows 3–5 layers. Choledochoceles type B can also show layered wall sometimes and as seen in this case. The central hypoechoic layer is muscularis mucosae as was confirmed on histology (Figure 4).



**Figure 1.** Choledochoceles type (a) are cystic dilatations of a segment of the intra-ampullary bile duct and are located proximal to the ampullary orifice. Choledochoceles type (b) are diverticula of the intra-ampullary common channel and are located distal to the ampullary orifice. In duodenal duplication cyst (c), the cyst wall is lined by muscularis propria and is in continuity with the duodenal muscle layer.



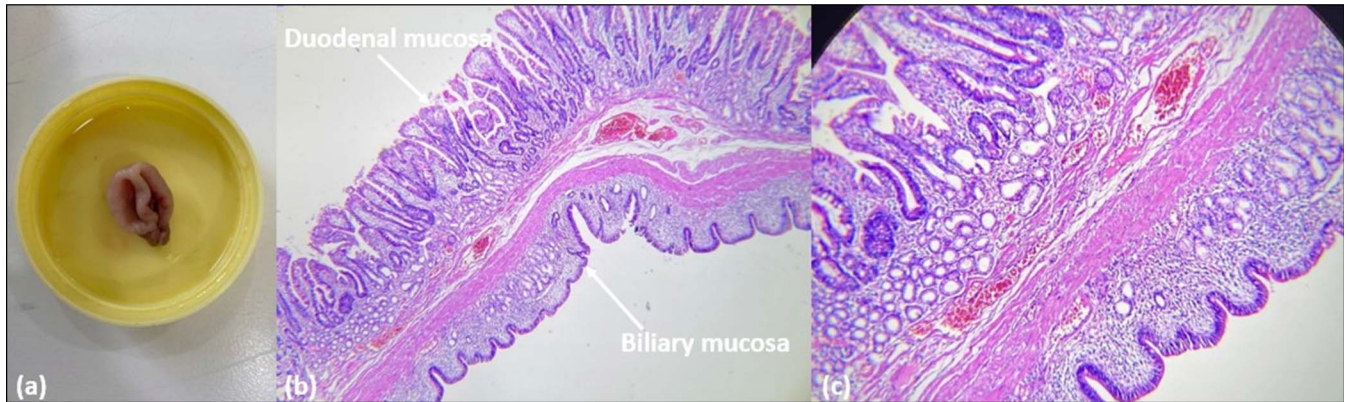
**Figure 2.** Magnetic resonance cholangiopancreatography demonstrated a common channel at the ampulla with communication with the cyst (B). In one coronal T2W sequence, the cyst was seen in D1 (A), and in another sequence, it was in D2 extending to D3 (B) suggestive of mobile cyst. The common bile duct diameter also varied between sequences from 8 to 12 mm suggestive of dynamic compression. CBD, common bile duct.



**Figure 3.** Endoloop application at the base of cyst keeping due precaution to keep it away from major papilla (A). Resected base (B).

**Table 1. Clinical presentations, imaging findings, and management of periampullary cystic lesions<sup>2-4</sup>**

Features	Choledochocele type A	Choledochocele type B	Duodenal duplication cyst
Incidence		Relatively more frequent	Extremely rare
Age at onset		Older age	Usually, childhood
Clinical presentation		Pancreatitis 38%–70% Jaundice 11%–25% Cholangitis 0%–10%	Pancreatitis 50% Jaundice 3% Cholangitis 3%
Endoscopic ultrasound findings	Calculi may be seen within the cyst	Cyst is separate from the duodenal muscle layers	3–5 layers seen. Cyst wall is in continuity with the duodenal muscle layer
Communication with biliary tract		Yes	May or may not communicate
Mucosa		Biliary mucosa on the inner side	Duodenal. Rarely ectopic gastric mucosa present
Peristalsis		Never	May be seen
Management	Endoscopic sphincterotomy	Endoscopic snare excision	Deroofing



**Figure 4.** Gross specimen of the resected cyst (A). 10× magnification of the cyst wall shows duodenal mucosa on the outer side and biliary mucosa on the inner side and muscularis mucosa in between (B). 40× magnification of the cyst wall (C).

## DISCLOSURES

Author contributions: R. Prajapati, P. Desai: conception and data acquisition; P. Desai, C. Patel, M. Kabrawala, P. Arora: data review and final approval. R. Prajapati is the article guarantor.

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Informed consent was obtained for this case report.

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