Choledochal cyst: a future indication for peroral choledochoscopy?

A 31-year-old man with no medical history was admitted to the emergency department following 3 days of abdominal pain and jaundice. The laboratory work-up revealed elevated levels of bilirubin (9.2 mg/dL; direct 6.5 mg/dL) and C-reactive protein (30 mg/dL). Transabdominal ultrasound showed dilatation of the common bile duct (10 mm), thickened gallbladder wall with sludge, but no evidence of choledocholithiasis.

An abdominal magnetic resonance imaging was performed and depicted, in the mid-portion of the common bile duct, a 24-mm saccular lesion communicating with the bile duct lumen, which was compatible with a type II choledochal cyst, according to the Todani classification (Fig. 1).

Peroral choledochoscopy using the SpyGlass system (Boston Scientific, Marlborough, Massachusetts, USA) was performed, and showed friability of the epithelium and mucoid debris in the cyst opening (Video 1). Biopsies were taken using SpyBite forceps (Boston Scientific). Microscopic examination of the cyst wall disclosed a stratified squamous epithelium lining, with mucinous cells focally, without dysplasia (Fig. 2).

The patient underwent resection of the common bile duct, followed by hepaticojejunostomy. The surgical specimen did not reveal any additional features. We have described the first reported case of peroral cholangioscopy in a patient with a choledochal cyst. This technique can be important in the management of

Fig. 1 Magnetic resonance imaging revealed a 24-mm saccular lesion communicating with the bile duct lumen, compatible with type II choledochal cyst.

Video 1 Peroral choledochoscopy using the SpyGlass system (Boston Scientific, Marlborough, Massachusetts, USA) for evaluation of a choledochal cyst.

Fig. 2 Histological features (hematoxylin and eosin) of the choledochal cyst. The cyst wall was lined by stratified squamous epithelium, with mucinous cells focally. There was no dysplasia. a × 200; b × 400.
these patients where the choledochal cyst may represent a premalignant state. In fact, it might be used to detect dysplasia of the bile ducts, with direct visualization of the mucosa and the possibility of obtaining biopsy samples. Moreover, and particularly in type II choledochal cyst, cholangioscopy can be used to help establish the best surgical approach, allowing, in some situations, more conservative treatment.

Competing interests: None

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DOI http://dx.doi.org/10.1055/s-0042-118169
Endoscopy 2016; 48: E359–E360
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Stuttgart · New York
ISSN 0013-726X