REVISTA ESPAÑOLA DE
ENFERMEDADES DIGESTIVAS
The Spanish Journal of Gastroenterology

Title:
Endoscopic view of the intrahepatic biliary ducts by direct per-oral cholangioscopy in a patient with a choledocal cyst

Authors:
Andrés J. del Pozo-García, Pablo Hernán, Juan Antonio Serrano, José Carlos Marín-Gabriel, Fernando Sánchez-Gómez, Lucía Ballesteros, Sonia Sáenz-López

DOI: 10.17235/reed.2022.8551/2021
Link: PubMed (Epub ahead of print)

Please cite this article as:
del Pozo-García Andrés J., Hernán Pablo, Serrano Juan Antonio, Marín-Gabriel José Carlos, Sánchez-Gómez Fernando, Ballesteros Lucía, Sáenz-López Sonia. Endoscopic view of the intrahepatic biliary ducts by direct per-oral cholangioscopy in a patient with a choledocal cyst. Rev Esp Enferm Dig 2022. doi: 10.17235/reed.2022.8551/2021.

REVISTA ESPAÑOLA DE
ENFERMEDADES DIGESTIVAS
The Spanish Journal of Gastroenterology

Endoscopic view of the intrahepatic biliary ducts by direct per-oral cholangioscopy in a patient with a choledocal cyst

Andrés J. del Pozo-García*, Pablo Hernán*, Juan Antonio Serrano**, José Carlos Marín-Gabriel*, Fernando Sánchez-Gómez*, Lucía Ballesteros**, Sonia Sáenz-López**.

*Endoscopy Unit, Service of Gastroenterology, Hospital Universitario 12 de Octubre, Universidad Complutense, Madrid

**Service of Gastroenterology, Hospital Universitario 12 de Octubre, Universidad Complutense, Madrid

Correspondence author and reprints:

Andrés J. del Pozo-García, andresjdelpozo@gmail.com

Disclosure statement:

None of the authors show any disclosure

Key words:

Choledocal cyst. ERCP. Direct per-oral cholangioscopy. Intrahepatic biliary ducts. Ampulloma.

Text:

Sixty year old female with hypertension and crampy abdominal pain episodes. Admitted to hospital (September-2020) by obstructive jaundice. MRCP: biliary dilation due to Todani Ic (fusiform) choledocal cyst (CC), distal sludge (fig. 1a). ERCP: normal mucosa prominent papilla (fig. 1b); biliary dilation compatible with CC; choledocholithiasis; 8-mm CHD filling defect (Fig. 1c – red arrows). Sphincterotomy, removal of stones/sludge, brush-

cytology of the filling defect (pathology: atypias). US: dilation resolution (CBD: 6.5 mm).

In November, jaundice persists; balloon occlusion ERCP precludes polyps; 3rd ERCP with large-balloon papillary dilation and direct per-oral cholangioscopy (DPOC) rules out filling defects (1), after reaching small intrahepatic branches (Fig. 1d, 1e).

But intermittent cholestasis and abdominal pain linger. Six months later, jaundice relapse. MRCP: CBD dilation, sludge recurrence; ampullary stenosis. ERCP: sphincterotomy stigmata in villous papilla with indurated areas (Fig. 1e); biliary dilation (17 mm); marked distal sharpening. Plastic stent placement after biopsy sampling, being pathology suspicious of ampullary adenocarcinoma. Tumor Committee decides cephalic duodenopancreatectomy, which confirms adenocarcinoma of the ampulla of Vater

CC are usually related to the anomalous junction of pancreaticobiliary duct, leading to pancreatic juice reflux, biliary wall weakness and distal CBD obstruction (2); some authors point out that CC can develop after a distal obstruction. Management includes surgery by its malignancy risk (2.5-25%), but implies high complication rates without avoiding 6% cholangiocarcinoma development (2-3). DPOC might help to discard malignancy and extension in positive cases, avoiding unnecessary surgeries and its adverse events (3-5). In this case, DPOC ruled out lesions in the proximal biliary tree but, as well as MRCP, US and standard ERCP, was unable to identify the ampulloma until gross morphological changes occurred 6 months later. We want to emphasize the need to persevere in the diagnostic process for unexplained jaundice in patients with CC, even biopsing normal appearance papillas (5).

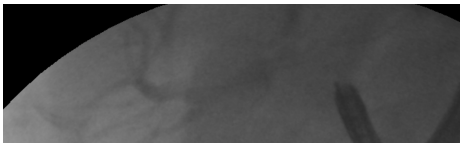
References:

1. Del Vecchio Blanco G, Mossa M, Troncone E, Argirò R, Anderloni A, Repici A, Paoluzi OA, Monteleone G. Tips and tricks for the diagnosis and management of biliary stenosis-state of the art review. World J Gastrointest Endosc. 2021 Oct 16;13(10):473-490. doi: 10.4253/wjge.v13.i10.473. PMID: 34733408; PMCID:

PMC8546565

2. Soares KC, Arnaoutakis DJ, Kamel I, Rastegar N, Anders R, Maithel S, Pawlik TM. Choledochal cysts: presentation, clinical differentiation, and management. J Am Coll Surg. 2014 Dec;219(6):1167-80. doi: 10.1016/j.jamcollsurg.2014.04.023. Epub 2014 Jun 27. PMID: 25442379; PMCID: PMC4332770.
3. Alcívar-Vásquez J, Oleas R, Robles-Medranda C. What should be the best approach in the management of bile duct cysts in the era of cholangioscopy? Rev Esp Enferm Dig. 2019 Dec;111(12):977. doi: 10.17235/reed.2019.6578/2019. PMID: 31793326.
4. Ikarashi S, Hayashi K, Terai S. Choledochocele observed on direct peroral cholangioscopy using an ultra-slim endoscope. J Hepatobiliary Pancreat Sci. 2021 Nov;28(11):e49-e51. doi: 10.1002/jhbp.884. Epub 2020 Dec 30. PMID: 33320443.
5. Dolz C.. Lesiones premalignas de la vîa biliar extrahepática. Un territorio por explorar de la mano de la colangioscopia. Rev Esp Enferm Digest 2021:113(1):4-6 DOI: 10.17235/reed.2020.7589/2020

Figure 1: 1.a) MRCP revealing the presence of a fusiform Todani type I-c choledocal cyst; 1-b) endoscopic view of a prominent papilla, compatible with choledocal cyst. 1.c) ERCP showing bile ducts dilation and filling defect in the proximal CHD (red arrows); 1.d) fluoroscopic image showing an Olympus ultraslim gastroscope reaching the intrahepatic ducts, filled by contrast in the upper part of the image; 1.e) and 1.f) endoscopic view of the small intrahepatic biliary branches by DPOC.



REVISTA ESPAÑOLA DE
ENFERMEDADES DIGESTIVAS
The Spanish Journal of Gastroenterology