LESS

Letter to the Editor

Laparosc Endosc Surg Sci 2024;31(3):142-144
DOI: 10.14744/less.2024.00087

A rare case in the literature; isolated cystic duct cyst

Serhat Doğan

Department of General Surgery, Kayseri Special Acibadem Hospital, Kayseri, Türkiye

A 38-year-old female patient presents to an external center with dyspeptic complaints. Cholelithiasis is detected in her ultrasonography, and preparations are made for the operation. During laparoscopic cholecystectomy, a choledochal cyst is observed, which was not detected on ultrasonography because it mimicked the gallbladder. The procedure is terminated, and she is referred to our clinic for further examination.

The patient's physical examination is normal; there is no additional illness in her medical history, and no history of drug use. Laboratory values are also normal. The patient undergoes MRCP (Fig. 1), and the report indicates a choledochal cyst, type II.

During the operation, a cystic structure next to the gallbladder with its own walls is observed (Fig. 2). When separated by sharp and blunt dissection, it is noted that the middle part of the cystic duct is dilated (Fig. 3). There is a narrow connection between the cystic structure and the gallbladder, leading to the conclusion that this part is the beginning of the cystic duct. The cyst is dilated in the middle section and enters the main hepatic duct by narrowing again. In the removed specimen, the part where the clip is located corresponds to the junction of the cystic duct and the main hepatic duct. The cystic duct is dilated in isolation.

When reviewing the literature, we find that three cases of isolated cystic duct dilatations have been presented before this case. We believe this to be the fourth reported case in the literature.

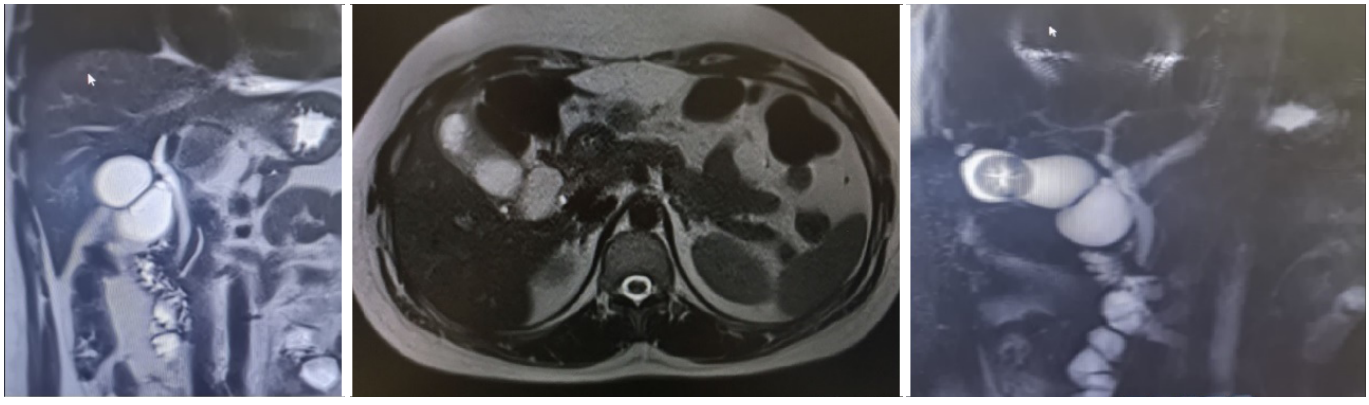

Figure 1. Images from the MRCP of the patient.

Received: 18.07.2024 **Revision:** 18.07.2024 **Accepted:** 29.08.2024
Correspondence: Serhat Doğan, M.D., Department of General Surgery, Kayseri Special Acibadem Hospital, Kayseri, Türkiye
e-mail: drserhatdogan@gmail.com

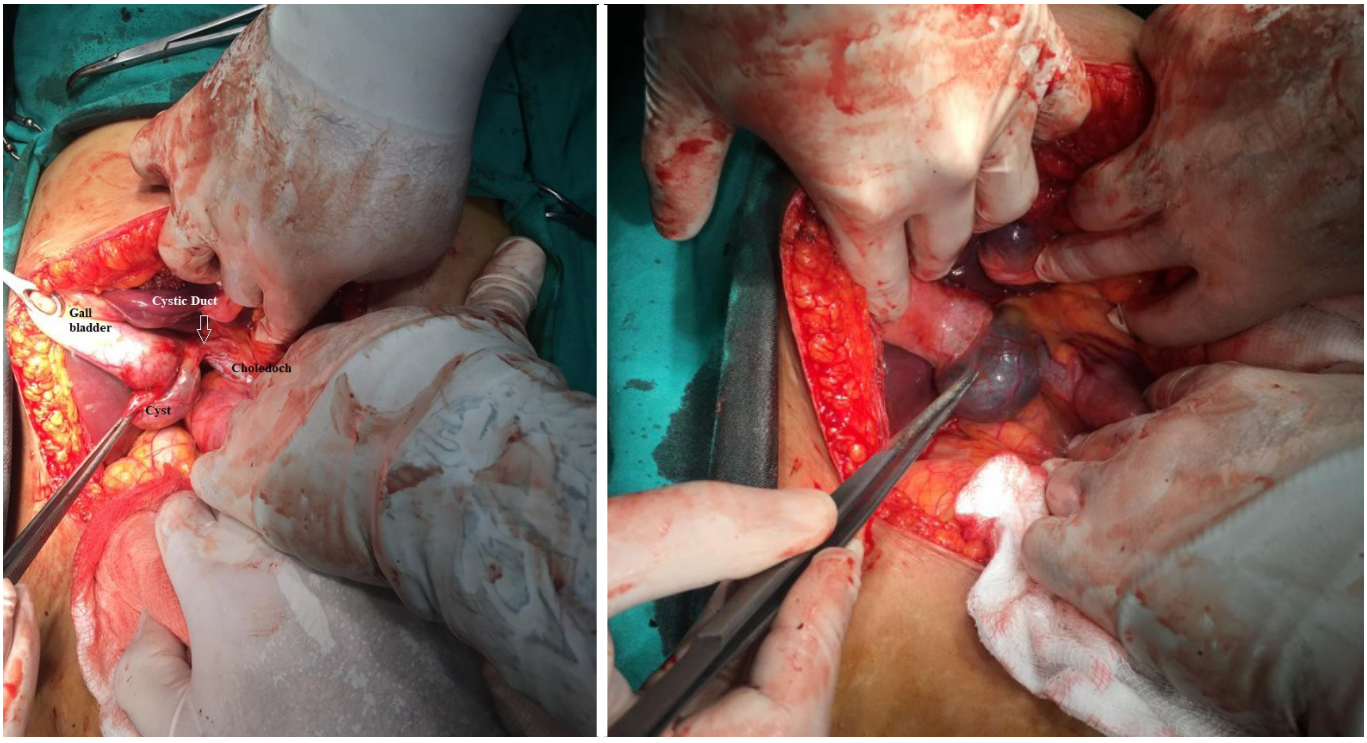

Figure 2. In operation photo.

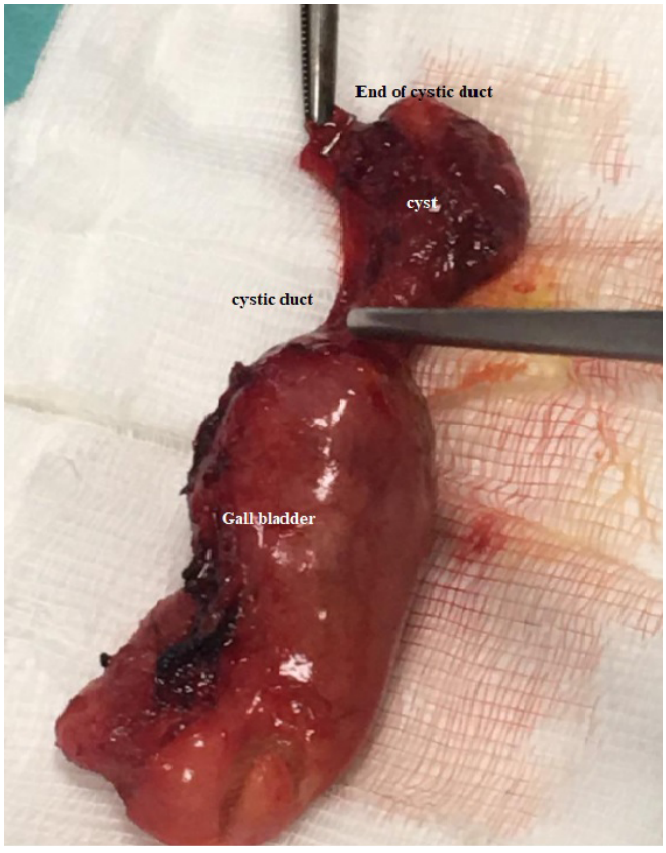

Figure 3. Laparoscopic cholecystectomy specimen.

Macroscopic examination of the surgical specimen did not reveal any biliary tract pathology that could explain the dilatation of the cystic duct.

Cholecystectomy was performed, and the specimen was removed en bloc.

Cystic dilatation of the bile ducts is a very rare condition, with an incidence of approximately 1 in 150,000.[1] It is more common in Asia, with a female-to-male ratio of 4:1, making it more frequent in women. Almost half of the cases (20%-50%) are encountered in adulthood.

It has been reported that the incidence of choledochal cancer in cases of cystic duct dilatation is up to 100 times higher than in the general population.[2]

Choledochal cysts are most commonly classified according to the Todani classification, which includes five types.[1-3] However, dilatation of the cystic duct is not included in Todani's classification. Due to its rarity, no formal classification has been established in the literature. Nonetheless, Serena et al. have named isolated cystic dilatation of the cystic duct as type VI in a modified Todani classification.[4]

Ultrasound, computed tomography, MRCP, and endoscopic retrograde cholangiopancreatography can reveal malformations of the biliary tree;[1-5] however, in some cases, these may not be identified, and detection during surgery is also possible. If necessary, the case should be referred to a higher-level clinic.

Biliary abnormalities should be surgically addressed due to the risk of serious complications such as pancreatitis,

acute cholecystitis, and cholangitis. The treatment of cystic duct dilatation is similar to that of other dilatations, with surgical intervention being the standard approach, as in the treatment of dilatations classified by Todani.

Disclosures

Peer-review: Externally peer-reviewed.

Conflict of Interest: None declared.

References

1. Crozier F, Hardwisgen J, Jaoua S, Charrier A, Aillaud S, Bourlière B, et al. Choledocal cyst associated with congenital cystic duct dilatation: Report of two cases. Ann Chir [Article in French] 2003;128(7):459–61.
2. Kianmanesh R, Régimbeau JM, Belghiti J. Biliopancreatic junction abnormalities and congenital cystic dilatations of the bile ducts in adults. J Chir [Article in French] 2001;138:196–204.
3. Loke TKL, Lam SH, Chan CS. Choledochal cyst: An unusual type of cystic dilatation of the cystic duct. AJR 1999;173:619–20.
4. Serena Serradel AF, Santamaria Linares E, Herrera Goepfer R. Cystic dilatation of the cystic duct: A new type of biliary cyst. Surgery 1991;109:320–22.
5. Bode WE, Aust JB. Isolated cystic dilatation of the cystic duct. Am J Surg 1983;145:828–29.