

CLINICAL IMAGE

A case of cystic duct syndrome

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Email: kakugali_zenz@yahoo.co.jp**Abstract**

In the diagnosis of gallbladder induced pain without gallstones, drip-infusion cholangiographic computed tomography, and endoscopic retrograde cholangiography are useful in differentiating cystic duct syndrome.

KEYWORDS

cystic duct syndrome, gallstone

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Cystic duct syndrome which causes the gallbladder-related symptoms is characterized stenosis of the cystic duct without gallstones. Drip-infusion cholangiographic computed tomography and endoscopic retrograde cholangiography are useful diagnostic tools and cholecystectomy is one of the treatments.

A 56-year-old woman presented with recurrent upper-right quadrant pain after meals for the past few years. Abdominal ultrasonography showed a dilated gallbladder and slight wall thickening with no gallstones (Figure 1A). Computed tomography (CT) detected no mass lesion at the gallbladder and cystic duct (Figure 1B). Drip-infusion cholangiographic (DIC)-CT revealed stenosis of the cystic duct near the Hartmann's pouch (Figure 1C). Furthermore, the

stenosis was confirmed by endoscopic retrograde cholangiography (ERC) (Figure 1D). Cytology of the bile showed no malignancy. Laparoscopic cholecystectomy was performed by clipping at the distal of the stenosis for the diagnosis of cystic duct syndrome, after that her symptoms were not relieved. Fibrous tissue growing beyond the fibromuscular layer was observed at the cystic duct by histopathology (Figure 2).

Cystic duct syndrome is a disease concept that is characterized by partial mechanical stenosis of the cystic duct without gallstones, proposed by Cozzolino et al in 1963.¹ Its etiology includes duct fibrosis, kinking, and adhesion.² DIC-CT and ERC, which directly and accurately identify the stenosis of the cystic duct, are useful diagnostic tools. If a patient has gallbladder-related symptoms without gallstones,

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FIGURE 1 A, Ultrasonography showed dilated the gallbladder and slight wall thickening without gallstones. B, Computed tomography detected no mass lesion at the gallbladder. C, Drip-infusion cholangiographic computed tomography revealed stenosis of the cystic duct. D, The stenosis was confirmed by endoscopic retrograde cholangiography

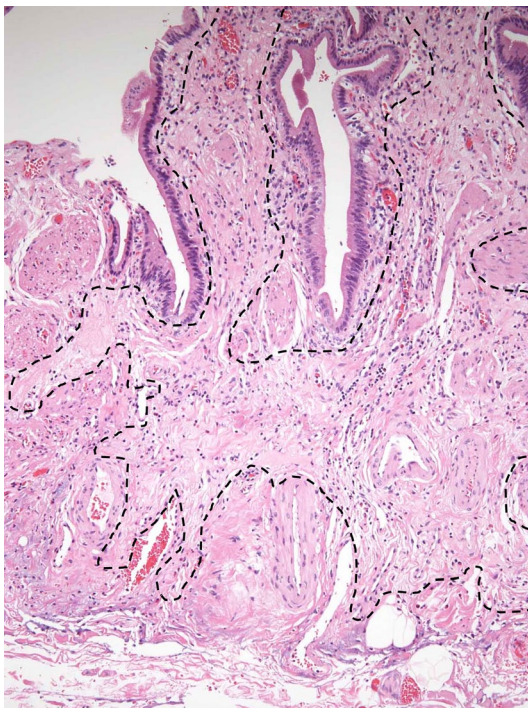


FIGURE 2 Fibrous tissue growing beyond the fibromuscular layer was observed at the stenosis section by hematoxylin and eosin stain

it is worthwhile to perform DIC-CT and ERC with keeping in mind this syndrome.

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CONFLICT OF INTEREST

The author declares that there is no conflict of interest that could be perceived as prejudicing the impartiality of the research reported.

AUTHOR CONTRIBUTIONS

MY: reviewed the case and the manuscript. TH, SB, SM, and TK: contributed to the manuscript revision.

ETHICAL APPROVAL

The patient has given informed consent for this publication. It is exemption from ethical approval because it is an observation report after the current care.

INFORMED CONSENT

Informed consent was obtained from the patient in this report.

DATA AVAILABILITY STATEMENT

All images and information regarding the case are available upon reasonable request.

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REFERENCES

1. Cozzolino HJ, Goldstein F, Greening RR, Wirts CW. The cystic duct syndrome. *JAMA*. 1963;185(12):920-924.

2. Fink-Bennett D, DeRidder P, Kolozsi W, Gordon R, Rapp J. Cholecystokinin cholescintigraphic findings in the cystic duct syndrome. *J Nucl Med*. 1985;26(10):1123-1128.

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