

: 3 1

(choledochal cyst)

가

3

. 3

(MRCP)

7

3.6 cm,

7.8 cm

(Fig. 1C),

가 (1 - 6).

가

Todani
, Serena Serradel
(2).

2

56

가

1

3

. 3

8.6 mg/dl

(MRCP)

가

가

Todani IC

. MRI MRCP 1

Todani IC

(Fig. 2).

가 가 Komi

type IA

, Roux - en - Y

1

66

가 2

6.5 × 9.4 × 5.4 cm

3.7 cm, 6.9 cm

(MRI) MRCP

Todani IC

3

17

4

(CT)

Komi

B

(Fig. 1A).

, Roux - en - Y

2.4 mg/dl

가

가 가

. MRI MRCP

1,

2

Todani

8.2 × 7.0 × 5.6 cm

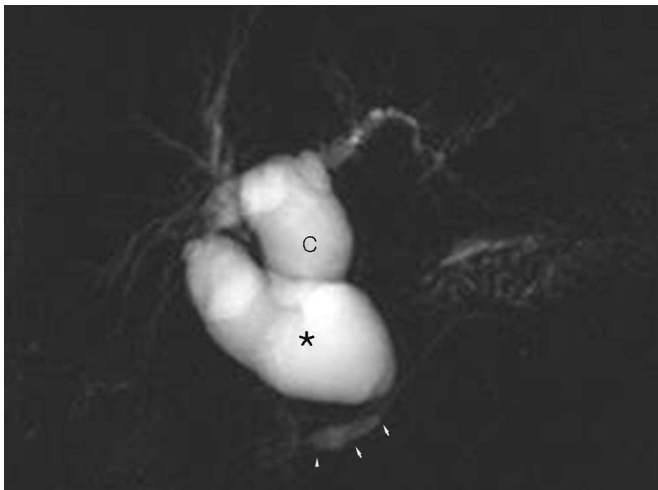
IC

(Fig. 3A).

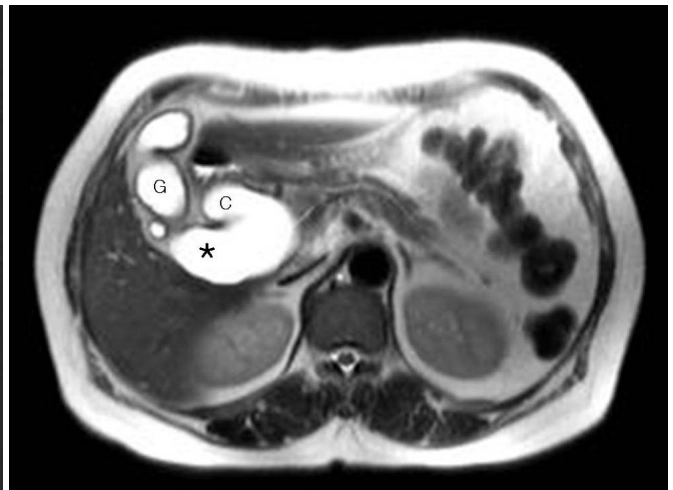
Komi IA , , Roux - en -
Y
3.3 × 10.5 × 3.3 cm ,
1.7 cm, 가 2.5 cm .

가
1852 Douglas가
가 30,000 - 50,000 1
가 1000
1 (4).
가 90 - 100% (7).
Komi 가 , I 가 가 , IB

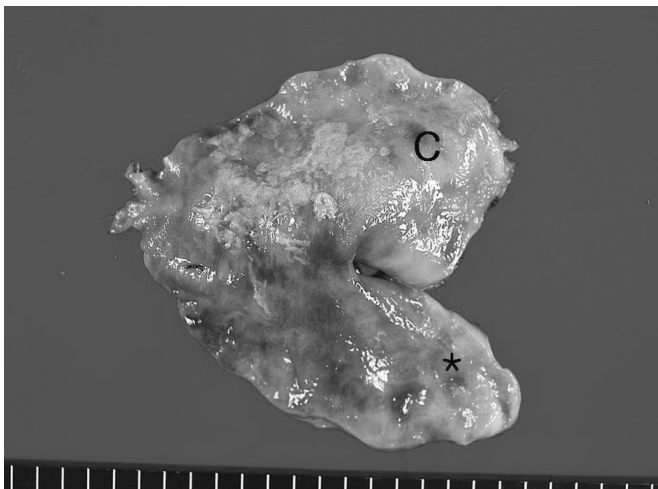
. II , IIA
가 가 , IIB 가 III
IIIA
(pancreas divisum) , IIIB
. IIIC
IIIC1, IIIC2,
IIIC3 , 가
(8).
가 , 가 ,
가 2.5 - 39.4% (3)
가 가 가 ,
(3).
가



A



B



C

Fig. 1. A 66-year-old man presented with right upper quadrant abdominal pain for 2 months.

A. A thick-slab coronal oblique MRCP shows fusiform dilations of common bile duct (C) and cystic duct (asterisk). There also show an acute-angled pancreaticobiliary ductal union and a long, ectatic common channel (arrowheads, Komi type IIB union).

B. Axial T2-weighted image demonstrates that a dilated structure along course of cystic duct (asterisk) communicates with common duct (C) through a wide opening. (G; gallbladder)

C. Photograph of an opened, resected bile duct cyst consisted of common bile duct cyst (C) and cystic duct cyst (asterisk) shows diffusely hemorrhagic and edematous mucosal surface.

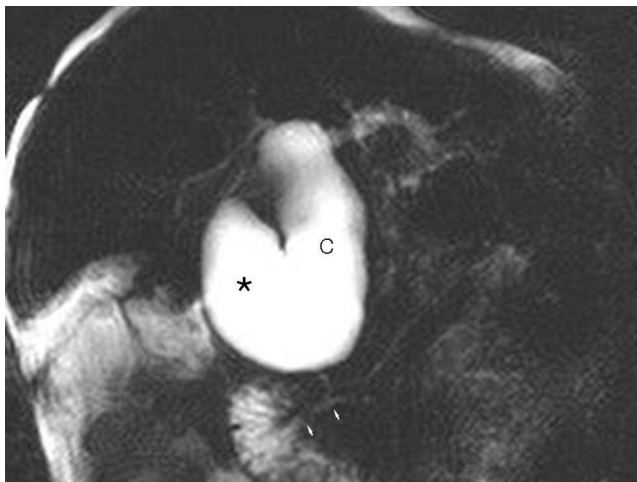


Fig. 2. A 56-year-old man presented with right upper abdominal pain for a month.

A thick-slab coronal MRCP shows diverticulumlike pouch (cystic duct, asterisk), communicates with common duct cyst (C) through a wide opening. There also show a right-angled pancreaticobiliary ductal union and a long and slender common channel (arrowheads, Komi type IA union).

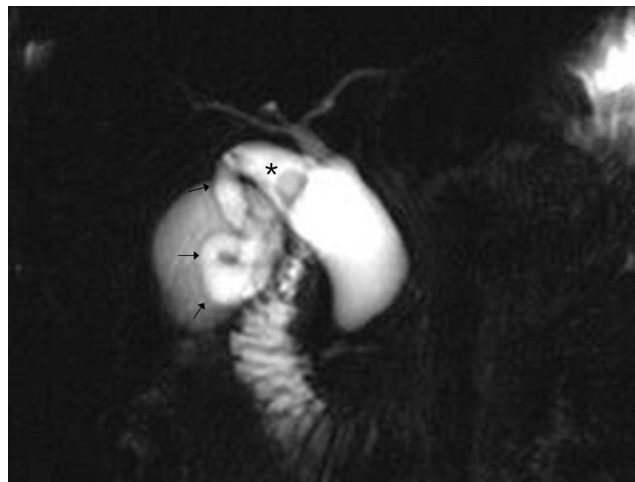


Fig. 3. A 17-year-old woman presented with epigastric pain.

A thick-slab oblique coronal MRCP shows marked cystic dilatation of the downstream cystic duct (asterisk) and areas of lesser dilatation in the upstream cystic duct. A stone in dilated downstream cystic duct is seen.

Roux - en - Y
(4).
1959 Alonso - Lej 가
가 가
. 1977 Todani
,
가 , IB (9), IA , IC
, III 가
, II (cholechocele)
. A
B
. V
6
7 가 (1-6).
, 5 52 , 가 6 ,
가 1 .
가 4 , 가 3
. Serena Serradel
Todani 가 (2).
Todani IA 1 , Todani IC 2 .
, Todani II
가 ,

Mirrizi
Komi IA 2
Todani IC , Komi IIB 1
7
(5), (ERCP)
4 mm ,
가
가
(10)
, 3
가 ,
(3), 가
, Serena Serradel Todani
가 . Todani

1. Bode WE, Aust JB. Isolated cystic dilatation of the cystic duct. *Am J Surg* 1983;145:828-829

2. Serena Serradel AF, Linares ES, Goepfert RH. Cystic dilatation of

- the cystic duct: a new type of biliary cyst. *Surgery* 1991;109:320-322
3. Lindberg CG, Hammarstorm LE, Holem T, Lundstedt C. Cholangiographic appearance of bile-duct cysts. *Abdom Imaging* 1998;23:611-615
 4. Loke T, Lam S, Chan C. Choledochal cyst: an unusual type of cystic dilatation of the cystic duct. *AJR Am J Roentgenol* 1999;173:619-620
 5. Weiler H, Grandel A, Fruhmorgen P. Congenital cystic dilatation of the cystic duct associated with an anomalous pancreaticobiliary ductal junction. *Ultraschall Med* 2003;24:197-201
 6. Crozier F, Hardwisgen J, Jaoua S, Charrier A, Aillaud S, Bourliere B, et al. Choledochal cyst associated with congenital cystic duct dilatation: report of two cases. *Ann Chir* 2003;128:459-461
 7. Komi N, Tamural T, Miyoshi Y, Kinitomo K, Udaka H, Takehara H. National wide survey of cases choledochal cyst: analysis of co-existent anomalies, complications and surgical treatment in 645 cases. *Surg Gastroenterol* 1984;3:69-73
 8. Craig AG, Chen LD, Saccone GT, Chen J, Padbury RT, Tooouli J. Sphincter of Oddi 's dysfunction associated with choledochal cyst. *J Gastroenterol Hepatol* 2001;16:230-234
 9. Todani T, Watanabe Y, Narusue M, Tabuchi K, Okajima K. Congenital bile duct cysts. Classification, operative procedure, and review of thirty-seven cases including cancer arising from choledochal cyst. *Am J Surg* 1977;134:263-269
 10. O'Neill JA Jr. Choledochal cyst. *Curr Probl Surg* 1992;29:361-410

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Choledochal Cyst Associated with Cystic Duct Dilatation: Report of Three Cases¹

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Traditionally, it has been accepted that choledochal cysts are cystic dilatations of the extrahepatic duct. The association of this anomaly with cystic dilatations of cystic duct is extremely rare. Here in three cases of choledochal cysts with cystic duct dilatations, unusual variant of choledochal cyst are described. In all three cases, MRCP showed that the dilated cystic duct communicates with a common duct through a wide opening.

Index words : Bile ducts, cysts

Magnetic resonance (MR), cholangiopancreatography

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