- Gender: male
- Age: 46
- Marital status: married
- Date of admission: 94/07/09

Chief Complaint

- Yellowish sclera and RUQ abdominal pain for one month

Present Illness

- Icteric sclera and intermittent fever with chillness for one month
- Tea color urine
- RUQ abdominal pain:
    1. Dullness and continuous
    2. More severe after meal
    3. No relieving factor
- Positive Murphy sign
- Body weight loss of 5kg during one month
- Admitted for further evaluation
- MRCP revealed common bile duct dilatation

- Past history:
  - medical: no
  - surgical: appendectomy 20 years ago
- Family history:
  - unremarkable
- Personal history:
  - smoking: one pack a day for 20 years
  - drinking: no
  - food allergy: no
  - drug allergy: no
  - Betel nut chewing: no

Laboratory Data

取様日期	940711
ALK-P (血液) [66-240 IU/L]	479
r-GT (血液) [5-61 U/L]	258

取様日期	940711
CEA (血液) [<4.6 ng/ml]	3.16
CA199 (血液) [<37 U/ml]	105.00

WBC [4.0-11.0 x10.e3/uL]	5.70
RBC [4.2-6.1 x10.e6/uL]	4.95
HGB [12-18 g/dL]	16.1
HCT [37-52 %]	46.0
MCV [80-99 fL]	92.9
MCH [26-34 pg]	32.5
MCHC [33-37 g/dL]	35.0
PLT [130-400 x10.e3/uL]	391
%NEUT [40-74 %]	53.2
%LYM [19-48 %]	33.3
%MONO [2.0-10.0 %]	6.3
%EOS [0-7 %]	6.5
%BASO [0-1.5 %]	0.7

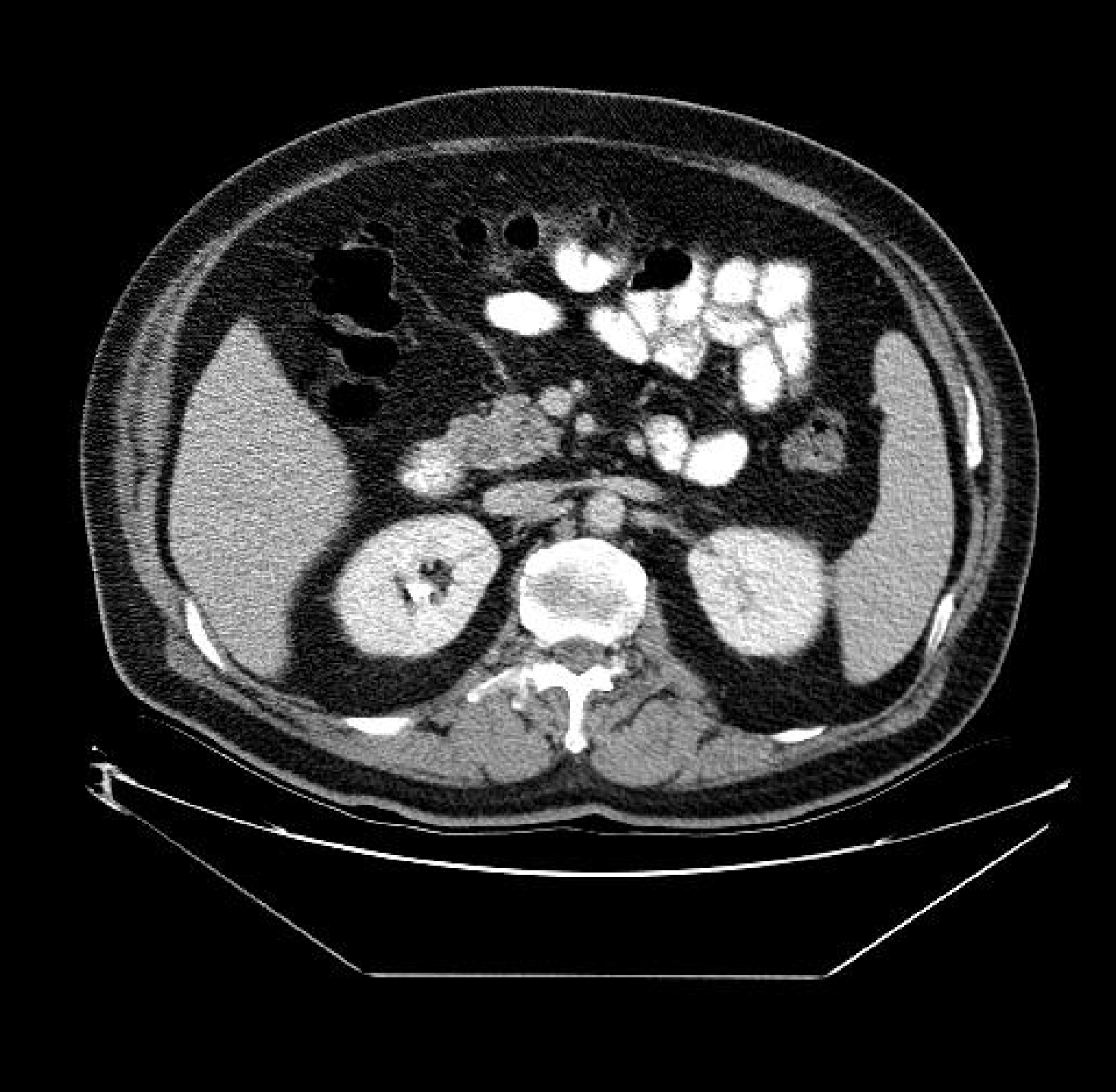
取様日期	940710
SP.Gr.	1.010
PH	5
Protein	-
Sugar	-
Ketone	-
Bilirubin	-
Occult Blood	-
Nitrite	-

Urobilinogen	0.1
***RBC**	0-2
***WBC**	0-2
***Epithel**	0-2
***Cast**	-
***Crystal**	-
***Bacteria**	-
COL	AMBER
WBC	-

取樣日期	940709	940709
BUN (血液) [7-18 mg/dl]	12	
Creatinine(血)[0.5-1.3 mg/dl]	1.0	
GOT(血液) [0-40 IU/L]	51	
GPT (血液) [0-40 IU/L]	69	
Bilirubin D(血)[0.0-0.4 mg/dl]		4.8
Bilirubin T(血)[0.2-1.2 mg/dl]		8.2
Albumin (血液)[3.5-5.3 g/dl]		3.1
Na (血液)[135-158 meq/L]	139.0	
K (血液)[3.5-5.3 meq/L]	4.00	

Image findings

MRCP revealed a filling defect at distal common bile duct with dilatation of both intrahepatic and extrahepatic bile ducts



CT revealed a mass lesion at distal common bile duct near the ampulla vater

Differential diagnosis

- Cholangiocarcinoma
- Adenoma
- Cystadenoma
- Papillomatosis

Cholangiocarcinoma

- Small hypoattenuating masses or thickening of the bile duct wall with obstruction on CT
- Irregularly bordered biliary duct with abrupt, uneven luminal narrowing
- Growth pattern:
    1. Duct-infiltrating (obstructive)
    2. Exophytic (mass-forming)
    3. Polypoid
- Infiltrating type:
    1. Most common
    2. Focal thickening of the bile duct walls with subsequent obstruction and prestenotic bile duct dilatation.

Adenoma

- Sonography: A well-defined lesion and absence of invasive features
- Multiple rather than solitary in many cases
- May involve any part of the biliary tract including the intrahepatic ducts
- Smoothly marginated
- CT: smoothly marginated, hypodense after contrast
- MRI: smoothly marginated, hypointense after contrast
- Cholangiography: Complete or incomplete obstruction by a endoluminal mass
- Rarely, obstruction is not due to polypoid mass but to a large amount of mucus

Abdom Imaging 22:87–90 (1997)

Cystadenoma

- Multilocular lesions
- Internal septations can be detected on MRCP
- Cystadenoma: Septas without nodules
- Cystadenocarcinoma: Both septas and nodules
- Signal intensity: Vary depending on protein concentration of mucinous fluids
- A fluid/fluid level secondary to internal hemorrhage is visible on both T1- and T2-weighted images
- Single or multiple septas in the cyst
- A hyperintense cystic lesion and bile ducts dilatation on MRCP

Eur Radiol. 2005 Jun 28

Papillomatosis

- ERCP: Excessive mucin discharge could be observed from the papilla
- Cholangiography: Multiple filling defects of adenomata, with or without ductal dilatation
- Endoscopy: Excessive mucus or blood in the duodenal lumen

J Hepatobiliary Pancreat Surg (2003) 10:390–395

Impression

- Adenoma

Excisional biopsy of distal common bile duct

- Tubular adenoma with low to high grade dysplasia

Discussion

Clinical presentation

- Obstructive jaundice (generalized pruritis, bilirubinuria, acholic stool)
- Body weight loss
- Abdominal pain
- May mimic cholecystitis, biliary calculi, cholangitis, choledochal cysts, or carcinoma

Laboratory data

- Serum bilirubin elevation
- Serum alkaline phosphatase elevation
- Serum ALT and AST remained within the normal range in some cases

Image of adenoma

- Sonography: A well-defined lesion and absence of invasive features
- Multiple rather than solitary in many cases
- May involve any part of the biliary tract including the intrahepatic ducts
- Smoothly marginated
- CT: smoothly marginated, hypodense after contrast
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- Cholangiography: Complete or incomplete obstruction by a endoluminal mass
- Rarely, obstruction is not due to polypoid mass but to a large amount of mucus

Treatment

- Based on:
  - Diagnostic results
  - Patient comorbidities and functional status
  - Suspicion of malignancy
- Whipple operation
- Endoscopic resection
- Open transampullary resection
- Segmental common bile duct resection with primary anastomosis or choledochoduodenostomy

Prognosis

- Propensity for malignant degeneration ?
- A one case study:

  Well at a follow up of eight months postoperatively

  (Hepatogastroenterology. 2003 Jul-Aug;50(52):949-51)
- A five cases study:

  1. One case expired seven months after operation due to sepsis
  2. Two cases alive at a follow up of six months postoperatively

  (Yonsei Med J. 1999 Feb;40(1):84-9)