Intraductal papillary neoplasms in the bile ducts

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Introduction

- IPNB is a new entity proposed by Zen et al. in 2006

  “Characteristic intraductal papillary tumor of the bile duct associated with hepatolithiasis as a biliary counterpart of IPMN-P” (intraductal papillary neoplasm of the bile duct: IPN-B)

- Definition by Zen et al. in 2007

  Certain types of papillary tumors occurring in the extrahepatic and intrahepatic large bile ducts with different malignant potentials.

IPNB of 2010 WHO classification

- WHO classification completely integrated the term “biliary papilloma(tosis)” and “papillary bile duct tumors” into the new term “intraductal papillary neoplasm of the bile duct (IPNB)” which excludes consideration for multiplicity and mucin production.

Clinical characteristics

6 cases, 2010-2012	(mean±SD), n(%)
Age(Yr), median	70.5(66.8±11.19)
Sex	
Male	4(66.7)
Female	2(33.3)
Location	
Extrahepatic bile duct	3(50.0)
Intrahepatic, left	3(50.0)
Intrahepatic, right	0(0)
Coexistance of biliary stones	
Present	2(33.3)
Absent	4(66.7)

Clinical characteristics

	(mean±SD), n(%)
Tumor marker abnormality CEA/CA19-9	 2(33.3)/ 1(16.7)
Tumor size(cm), median	3.00(3.5±1.79)
Histological grade of dysplasia High Intermediate Low	 4(66.7) 2(33.3) 0(0)
Malignant potential Malignancy Benign	 3(50.0) 3(50.0)

Case series

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
Age/sex	77/F	70/M	71/F	45/M	67/M	71/M
Location	Intrahepatic, left	Extrahepatic	Extrahepatic	Intrahepatic, left	Intrahepatic, left	Extrahepatic
Diameter	7cm	2cm	3.5cm	2.5cm	3cm	3cm
Pathology	Benign	Benign	Benign	Adeno-carcinoma with IPNB	Adeno-carcinoma with IPNB	Adeno-carcinoma with IPNB
Dysplasia	Intermediate	Intermediate	High	High	High	High
Survival	Alive (24month)	Expired (3month)	Alive (28month)	Alive (11month)	Alive (11month)	Expired (4month)

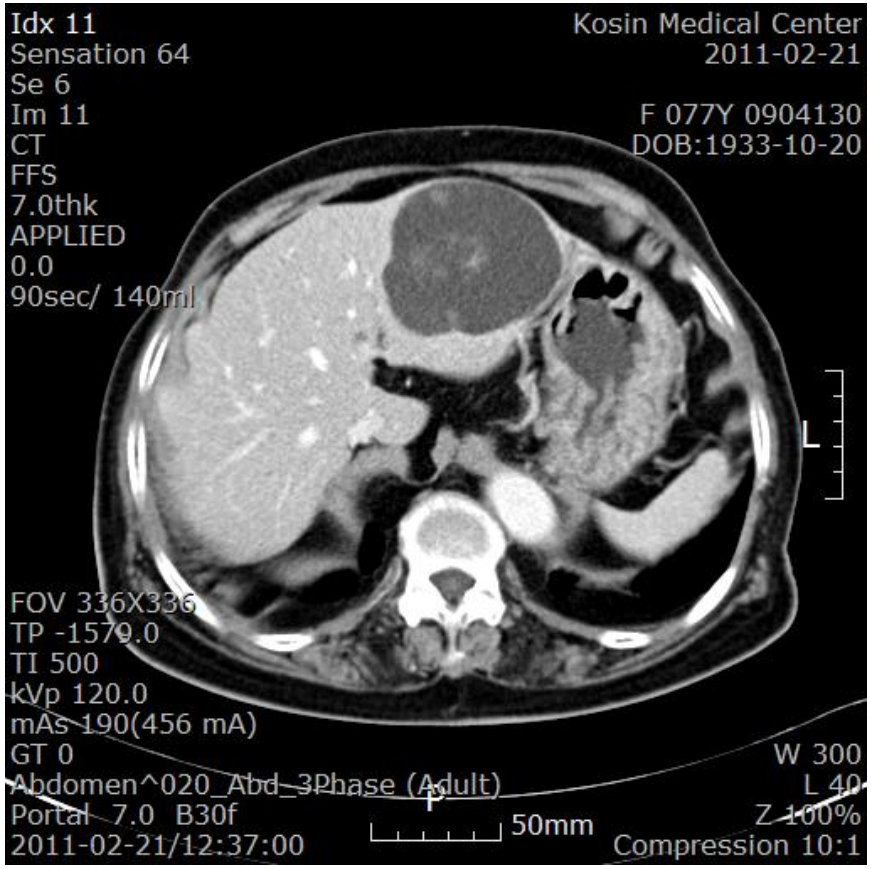
Case series

Median follow-up period is 11 months (range : 3 ~ 28 months),
Median survival of 4 patients who have been survived without recurrence is 17.5 months.
Among 3 patients of adenocarcinoma cases, 2 patients have been survived with no recurrence for 11 months in medial survival time.

Case 1

- 77/F

- Identified in 2006, 2cm, intrahepatic mass
- In 2011, visited for epigastric dull pain.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GT 0
Abdomen^020_Abd_3Phase (Adult)
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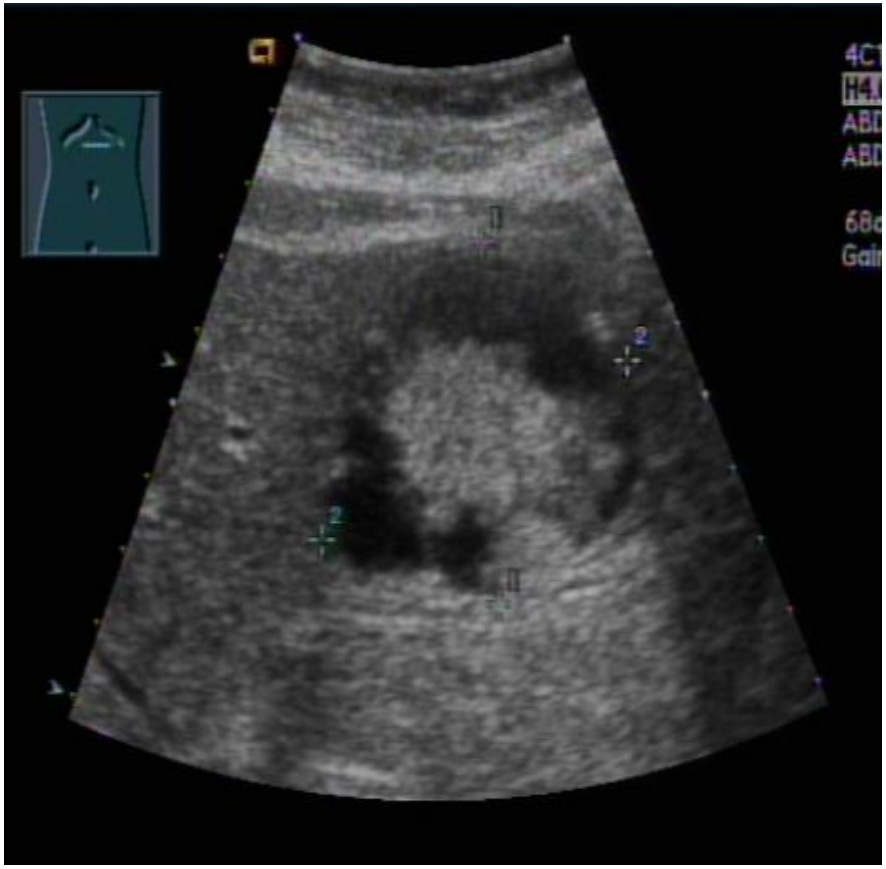
Compression 10:1

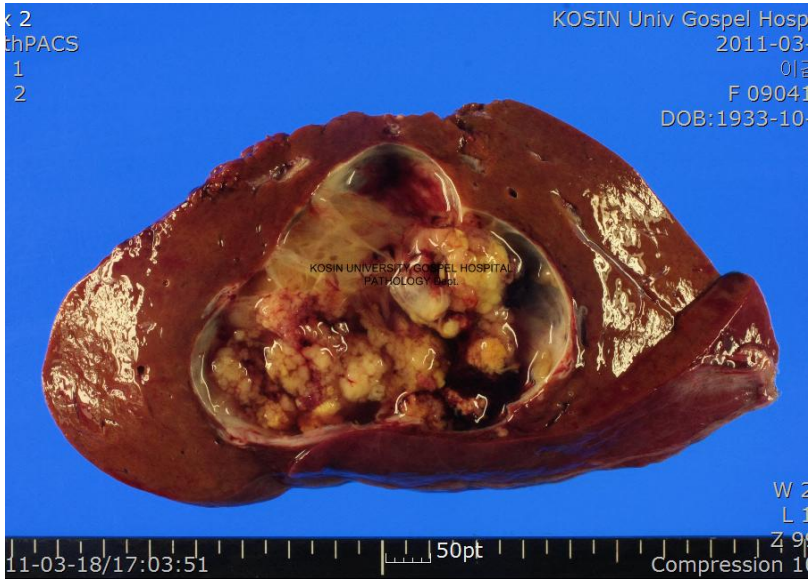


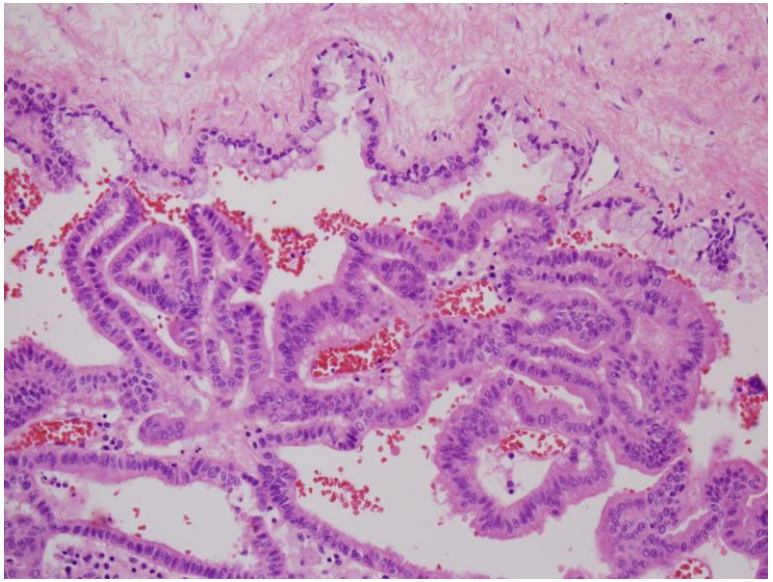
- 2011. 3 - Left lateral segmentectomy

- Pathologic report

  Intraductal papillary mucinous tumor,

  intermediate grade, intrahepatic type

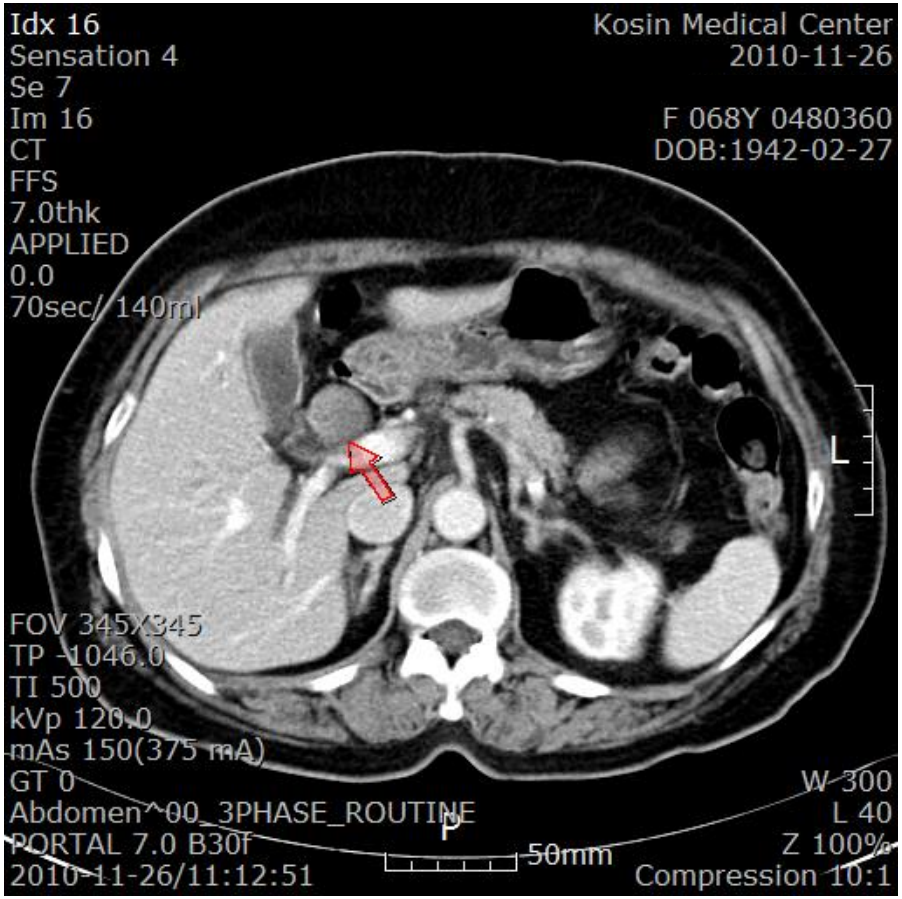




Case 3

- 71/F
- Visited for chilling sense, fever,
  right upper quadrant abdominal pain.

- CT : Suspected CBD cancer
- MRCP : Stone or sludge ball
- CEA : 5.65ng/ml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DOB:1942-02-27
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mAs 150(375 mA)
GT 0
Abdomen^00_3PHASE_ROUTINE
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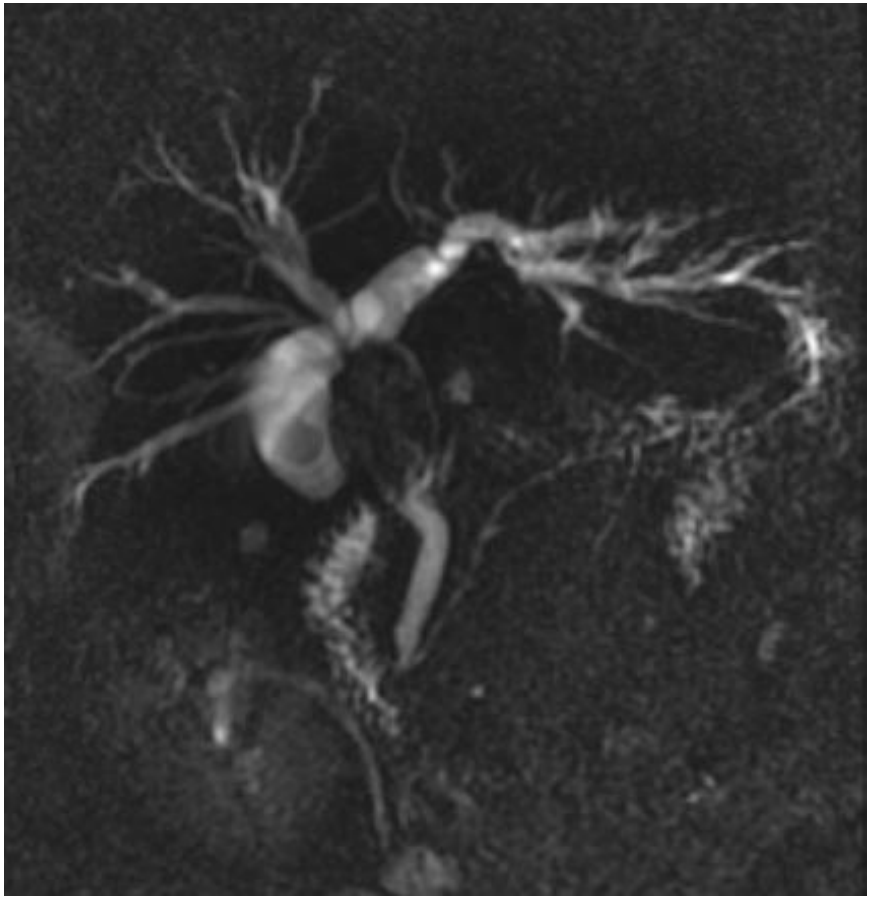
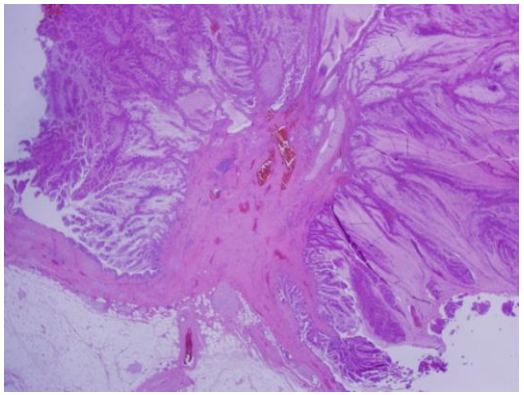
L 40
Z 100%
Compression 10:1

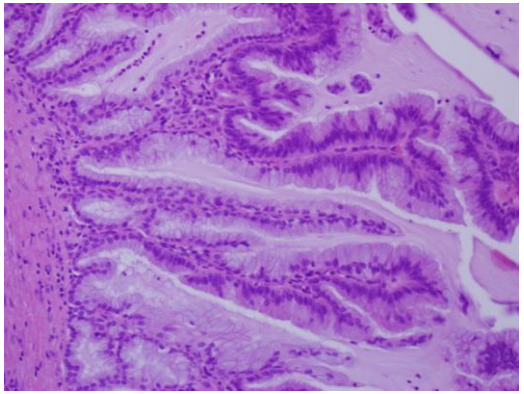


- 2010.11 – CBD resection c R-Y hepaticojejunostomy

- Pathologic report

  Intraductal papillary neoplasm (=biliary papillomatosis), intermediate to high grade

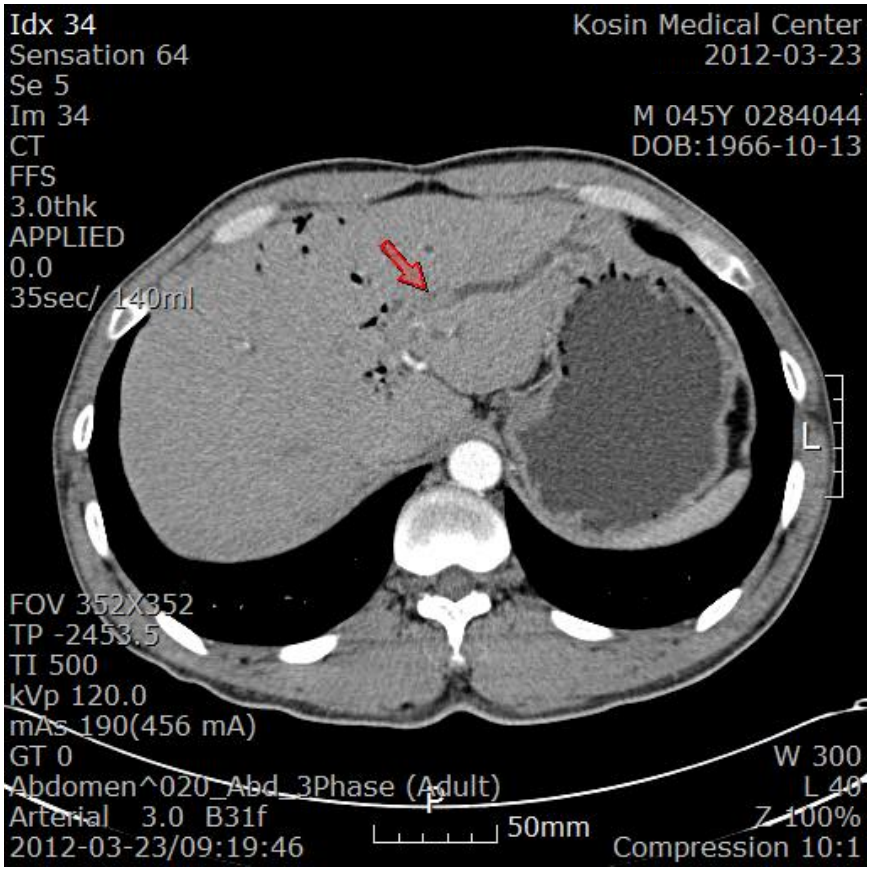




Case 4

- 45/M
- Past history – GB cancer, 2009
  CBD resection with R-Y choledochojejunotomy
  Diagnosed in F/U study

- CT : R/O S2 metastasis
- MRCP : IHD obstruction,
- PET CT : High uptake on S2 (SUVmax = 4.6)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TI 500
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mAs 190(456 mA)
GT 0
W 300
L 40
Abdomen^020_Abd_3Phase (Adult)
Arterial 3.0 B31f
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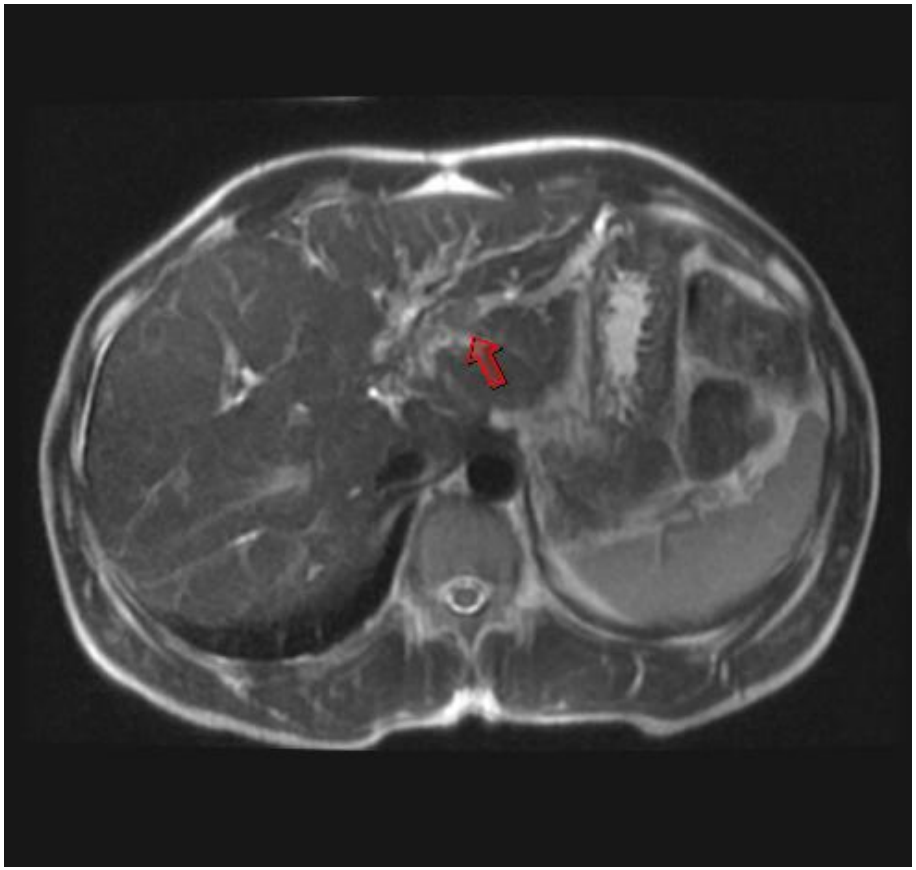
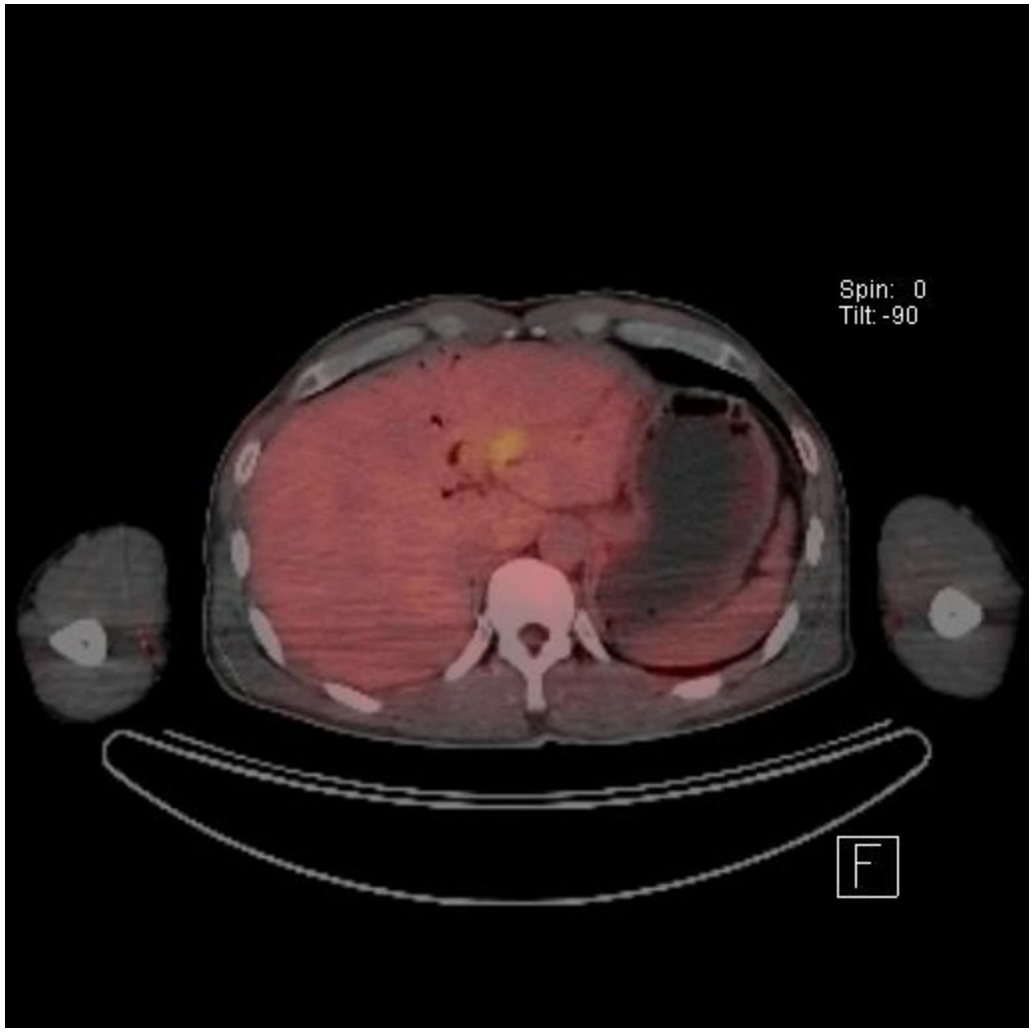
Compression 10:1

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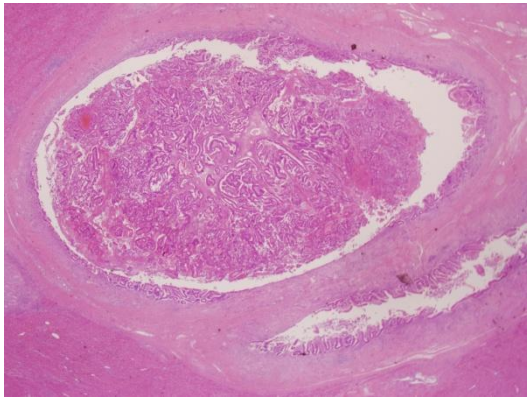
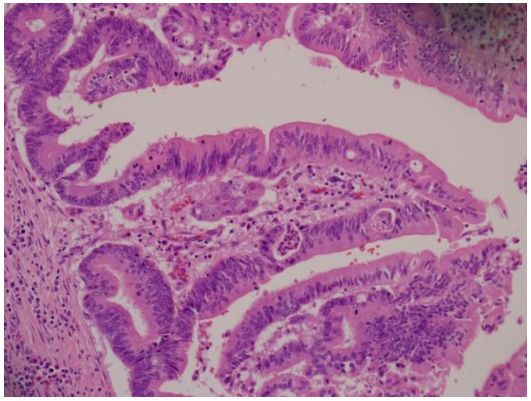
Tilt: -90
F

- 2012.4 – Left hepatectomy with caudate lobectomy

- Pathologic report
  Adenocarcinoma, lamina propria invasion
  microscopic large bile duct, S2 & S3,
  associated predominant intraductal
  papillary neoplasia
  with low to high grade dysplasia





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Se 1
Im 2
AP
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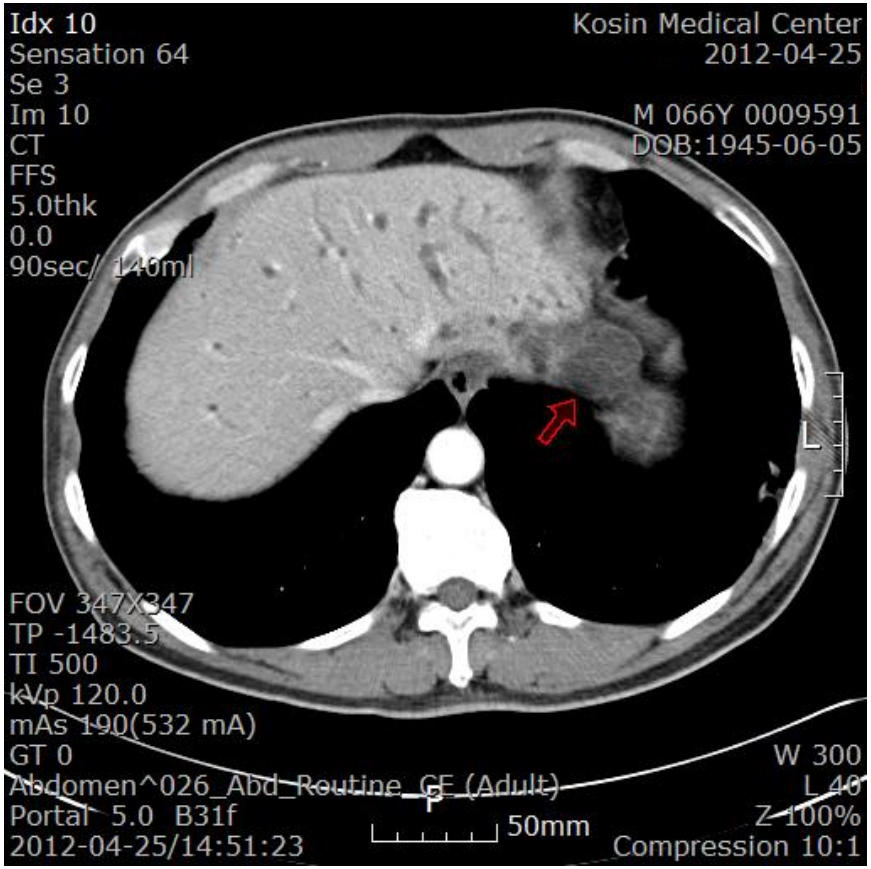
KOSIN UNIVERSITY GOSPEL HOSPITAL
PATHOLOGY Dept.
W 255
L 127
Z 100%
50pt
2012-05-03/14:27:09
Compression 10:1

Case 5

- 67/M
- Visited for jaundice

- CT – Peripheral cystic mass lesion
- MRCP – CBD stone, Lt. IHD dilatation
- ERCP – Mucin filled CBD, CBD stone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Kosin Medical Center
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TI 500
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mAs 190(532 mA)
GT 0
Abdomen^026_Abd_Routine_CE (Adult)
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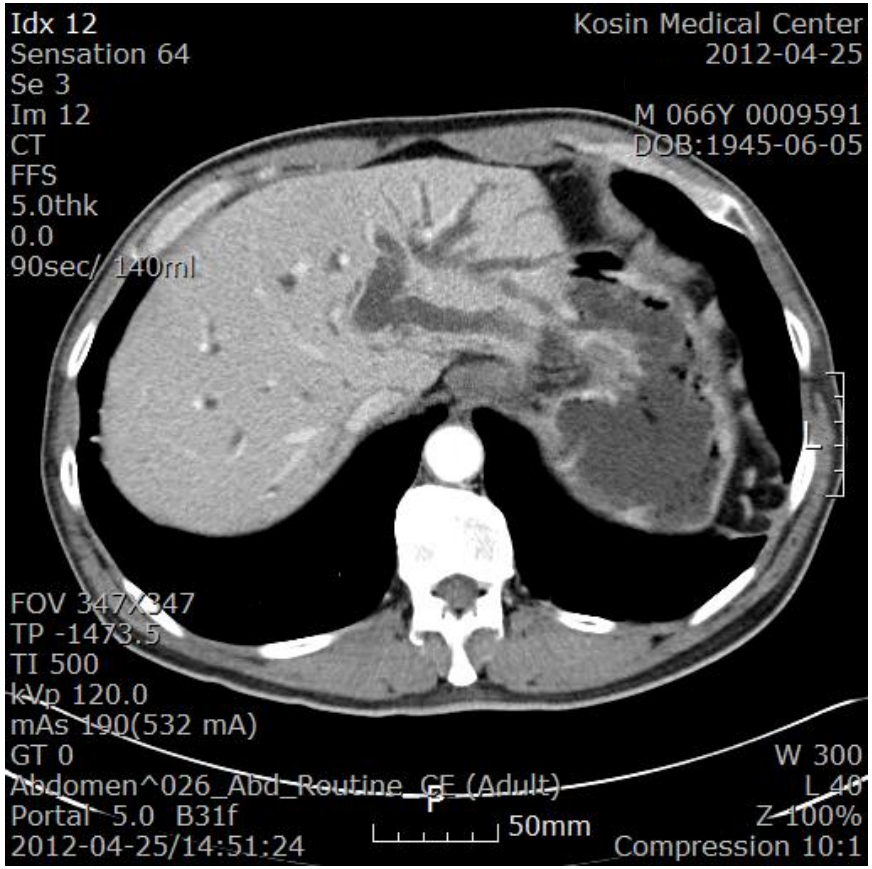
L 40
Z 100%
Compression 10:1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FFS
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90sec/ 140ml
Kosin Medical Center
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DOB:1945-06-05
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TP -1473.5
TI 500
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mAs 190(532 mA)
GT 0
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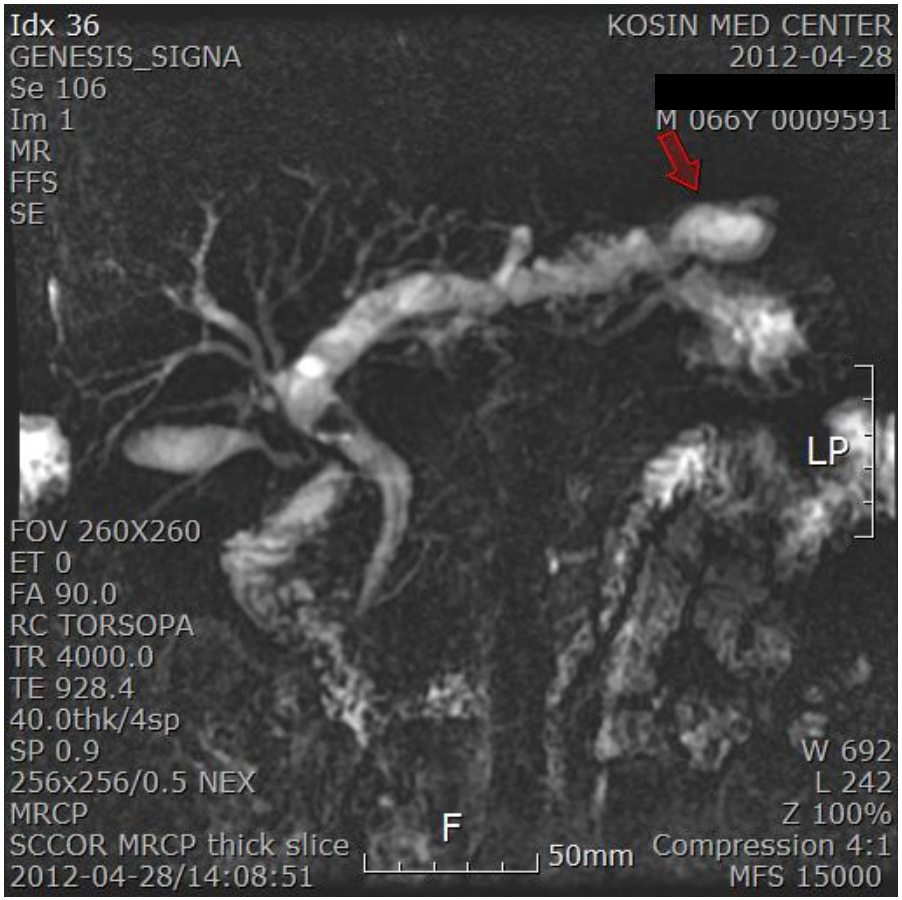
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Se 106
Im 1
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FFS
SE
KOSIN MED CENTER
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ET 0
FA 90.0
RC TORSOPA
TR 4000.0
TE 928.4
40.0thk/4sp
SP 0.9
256x256/0.5 NEX
MRCP
SCCOR MRCP thick slice
2012-04-28/14:08:51
F
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Z 100%
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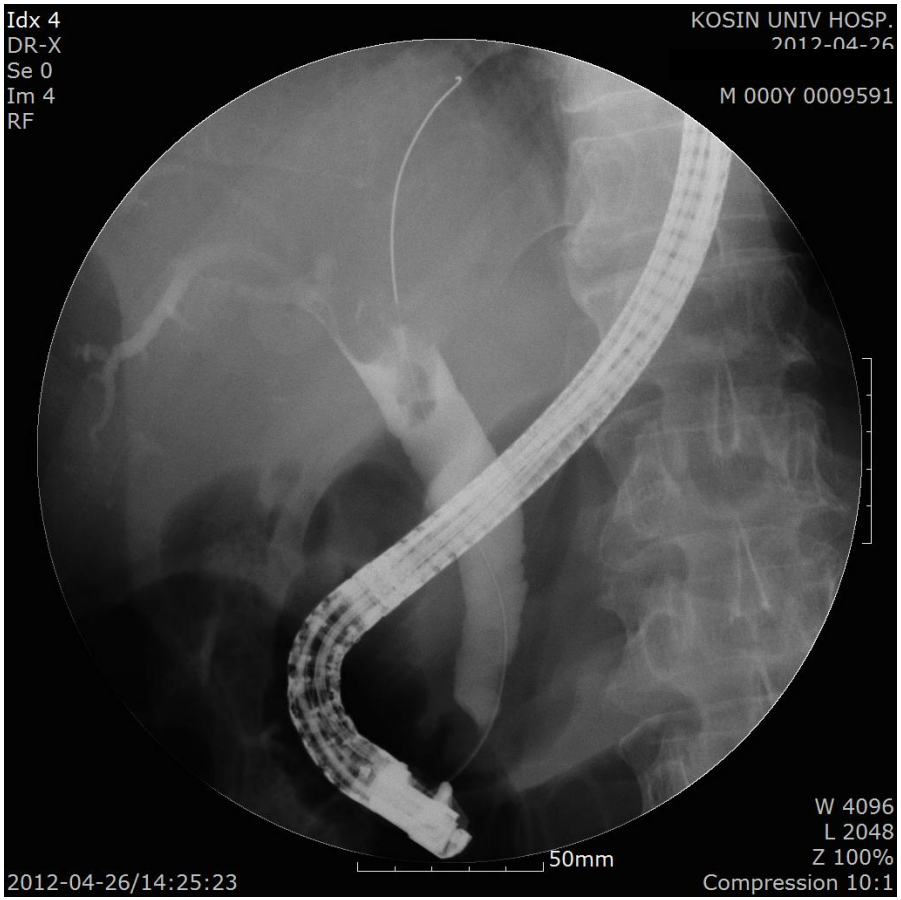
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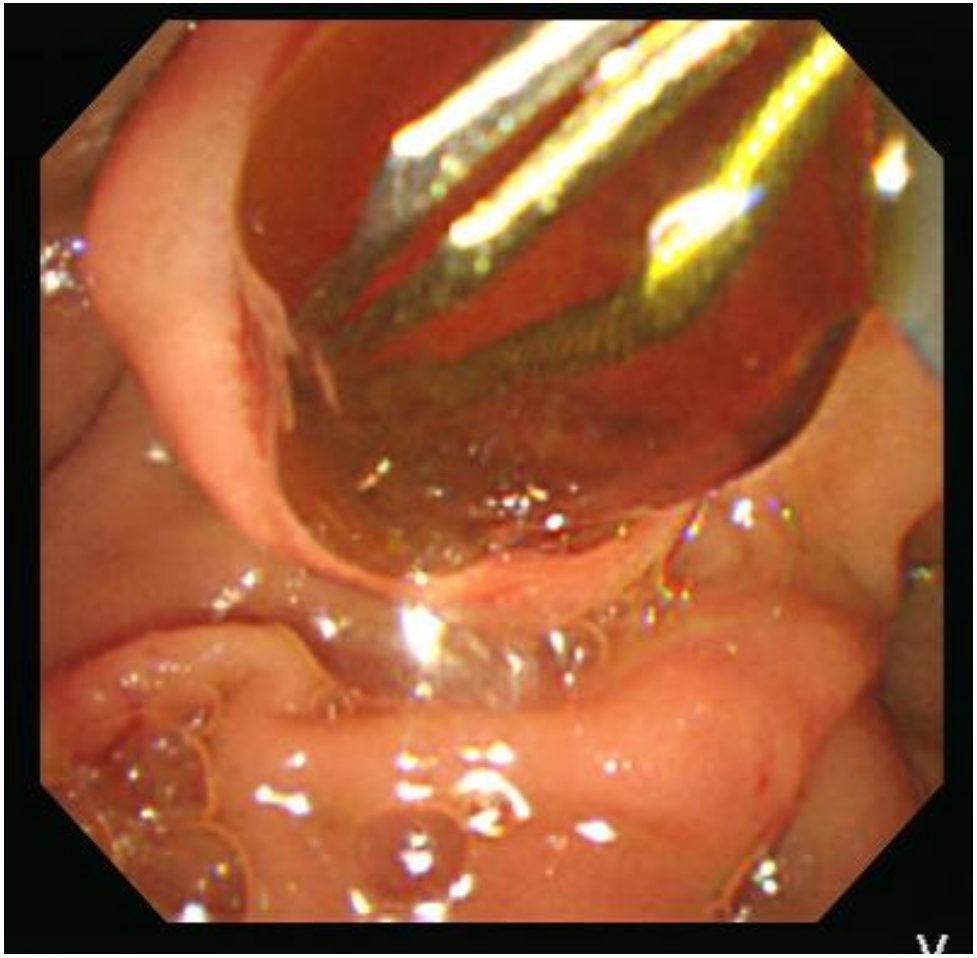
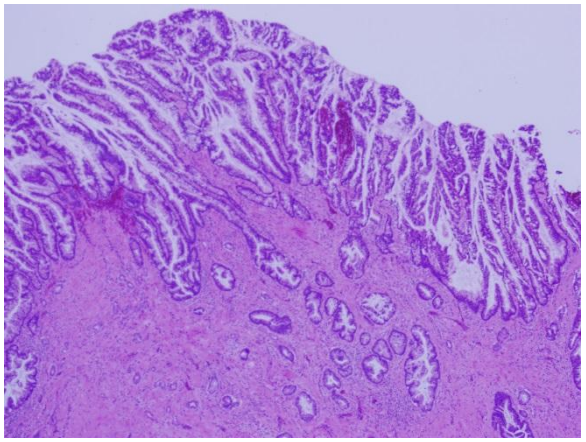
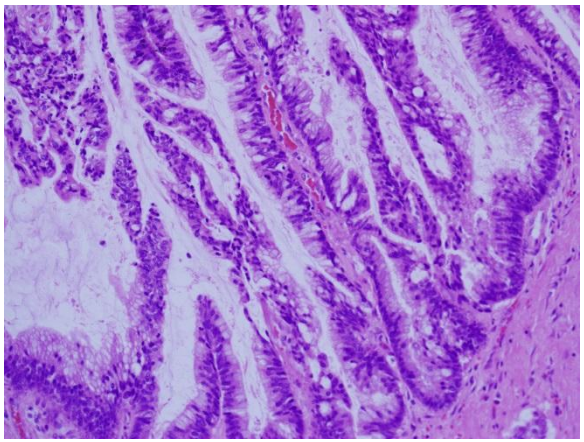
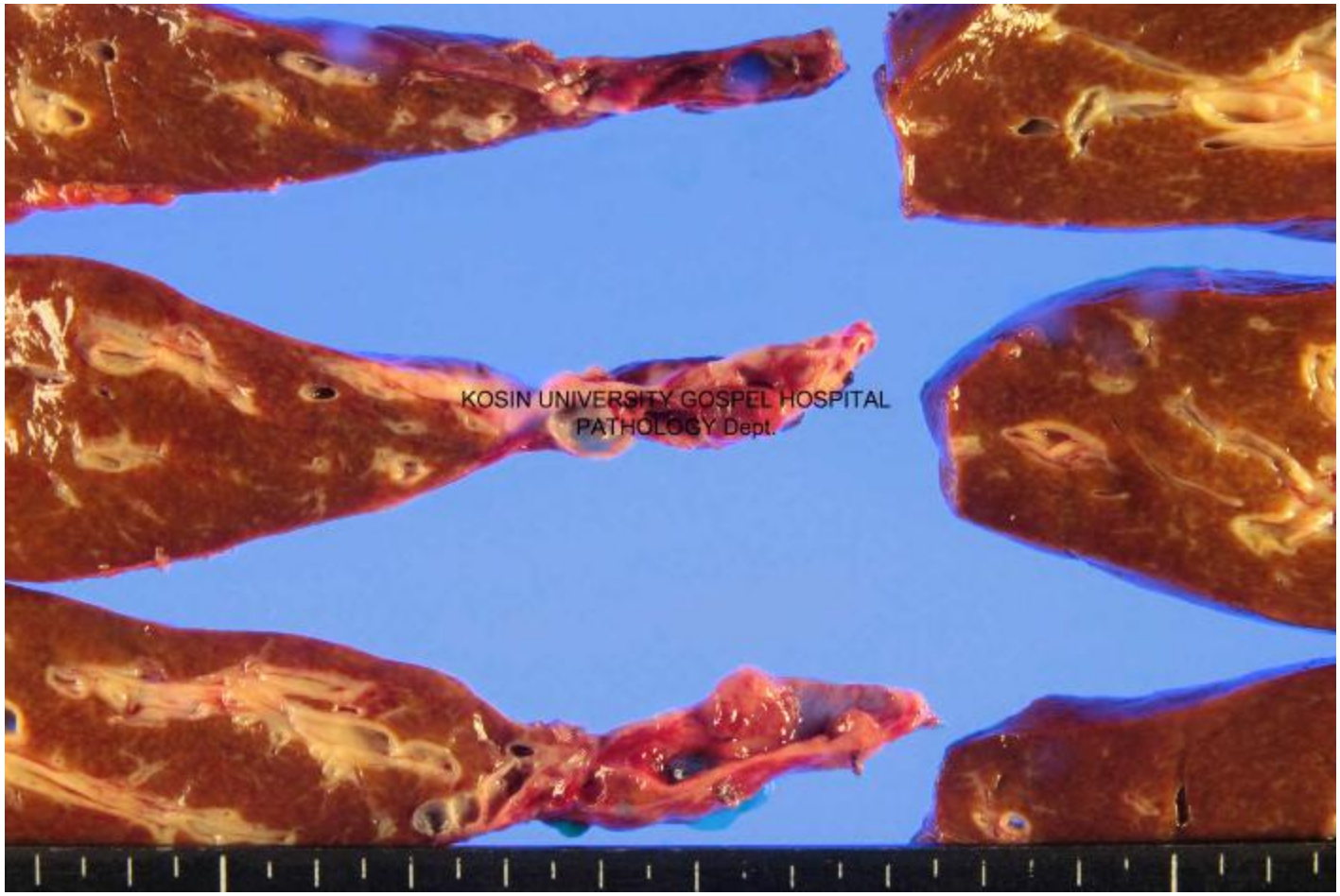


- 2012.5 – Left lateral segmentectomy

- Pathologic report
  Adenocarcinoma, (peripheral) bile duct,
  Associated intraductal papillary neoplasia,
  with low to high grade dysplasia
  Margin : negative for malignancy






KOSIN UNIVERSITY GOSPEL HOSPITAL
PATHOLOGY Dept.

Discussion and conclusion

- IPNB is a rare type of biliary neoplasms which includes a histological spectrum ranging from benign disease to invasive malignancy.

- Complete resection could provide better prognosis so accurate assessment of the tumor would be important.

Thank You.