

Q 専門領域について選択してください。

1. 消化器内科

70%

2. 消化器外科

24%

3. 放射線科

1%

4. その他の医師

5%

5. その他(医師以外)

0%



症 例 1

患者 74歳 女性

主訴 なし

既往歴 特記事項なし

現病歴 検診のUSにて主膵管拡張を指摘され、
紹介受診となる。

Laboratory data (初診時)

Peripheral blood

| | |
|-----|------------------------------|
| WBC | 6190 / μ l |
| RBC | 390 $\times 10^4$ / μ l |
| Hb | 12.0 g/dl |
| Plt | 18.6 $\times 10^4$ / μ l |

Coagulofibrinolysis

| | |
|----|--------|
| PT | 96.6 % |
|----|--------|

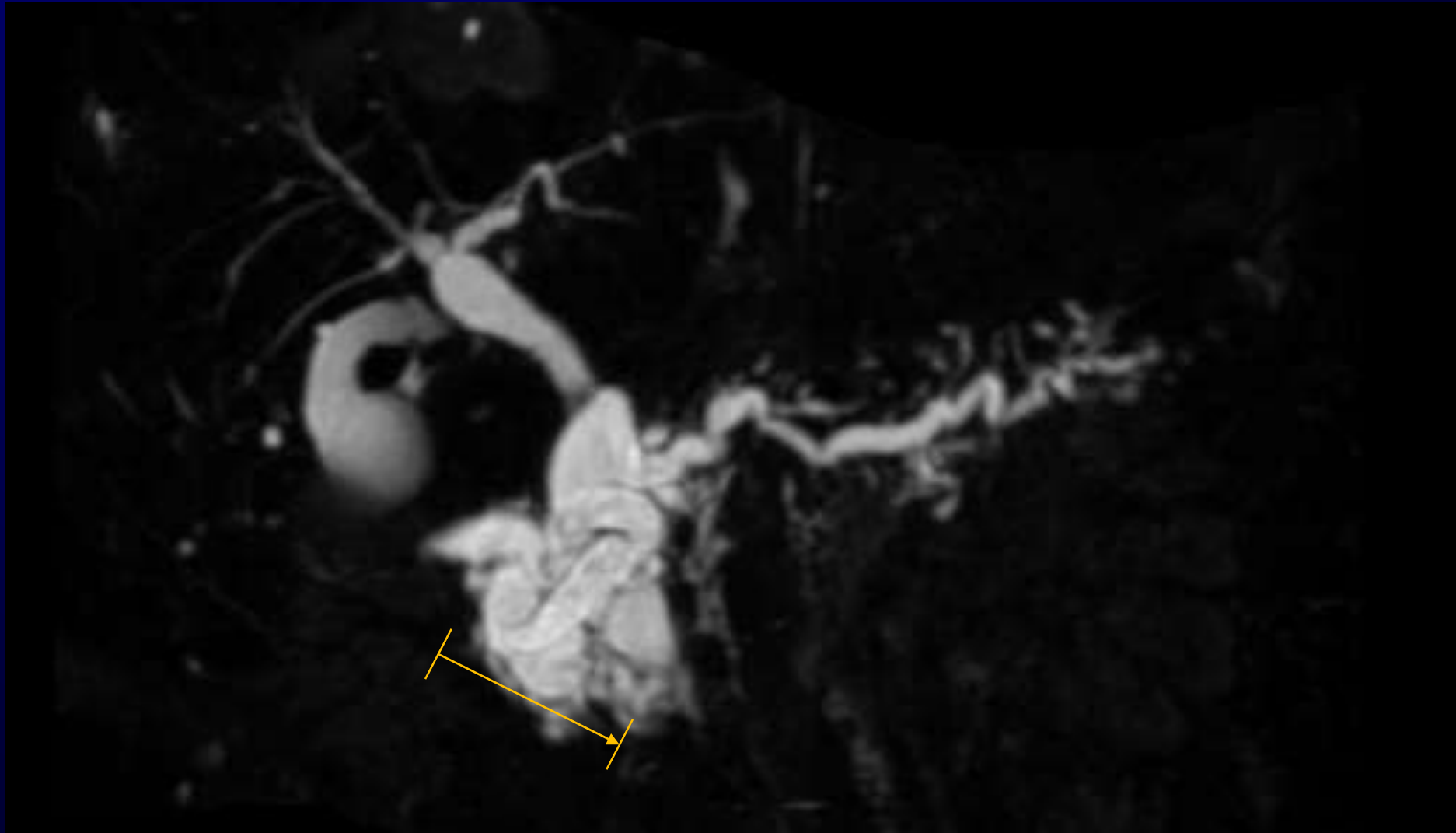
Tumor markers

| | |
|--------|-----------|
| CEA | 2.5 ng/ml |
| CA19-9 | 0.8 U/ml |

Blood chemistry

| | |
|--------------|------------|
| T.P. | 7.7 g/dl |
| T.Bil. | 0.4 mg/dl |
| D.Bil | 0.1 mg/dl |
| AST | 20 IU/l |
| ALT | 11 IU/l |
| ALP | 202 IU/l |
| LDH | 142 IU/l |
| γ GTP | 18 IU/l |
| BUN | 13.9 mg/dl |
| Cr | 0.40 mg/dl |
| Glu | 97 mg/dl |
| HbA1c | 5.8 |
| CRP | 0.06 mg/dl |

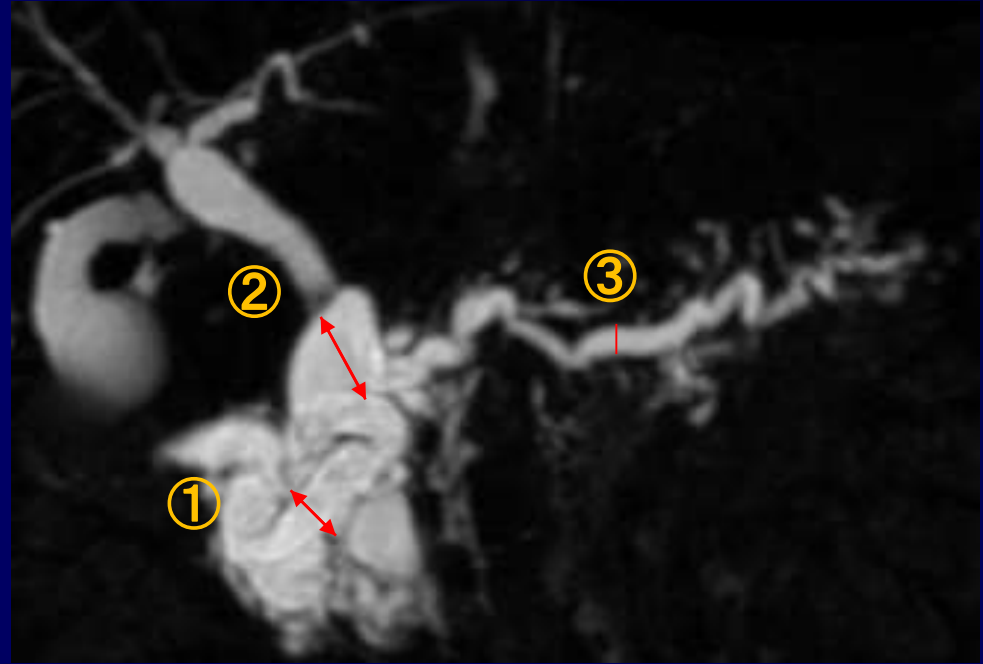
MRCP



擴張分枝徑(囊胞徑): 40mm

Q1 主膵管径はどこで測定するか？

1. ① 6mm
2. ② 14mm
3. ③ 4mm

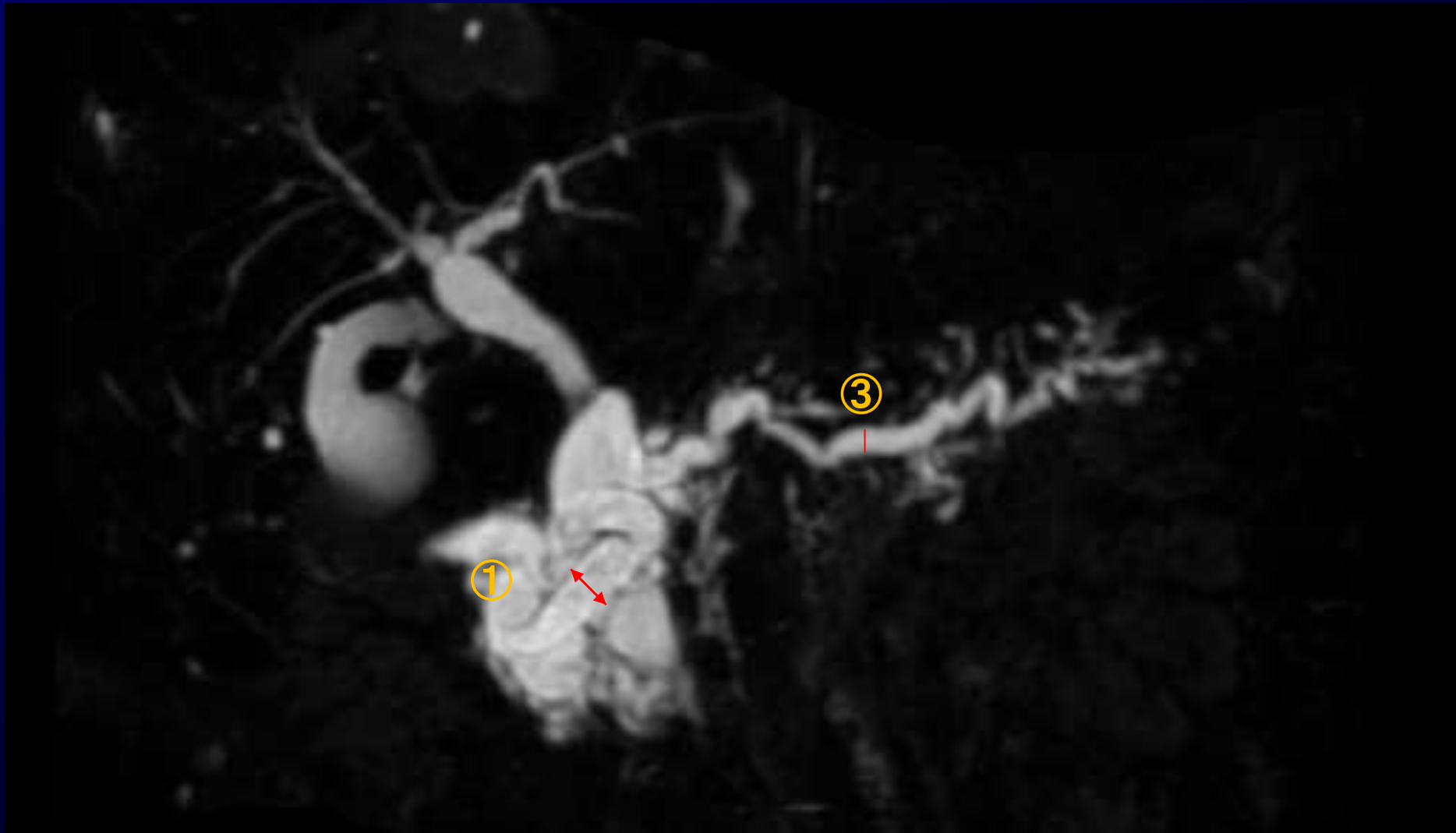




Q1 主膵管径をどこで測定するか？



MRCP



主胰管径：①6mm, ③4mm

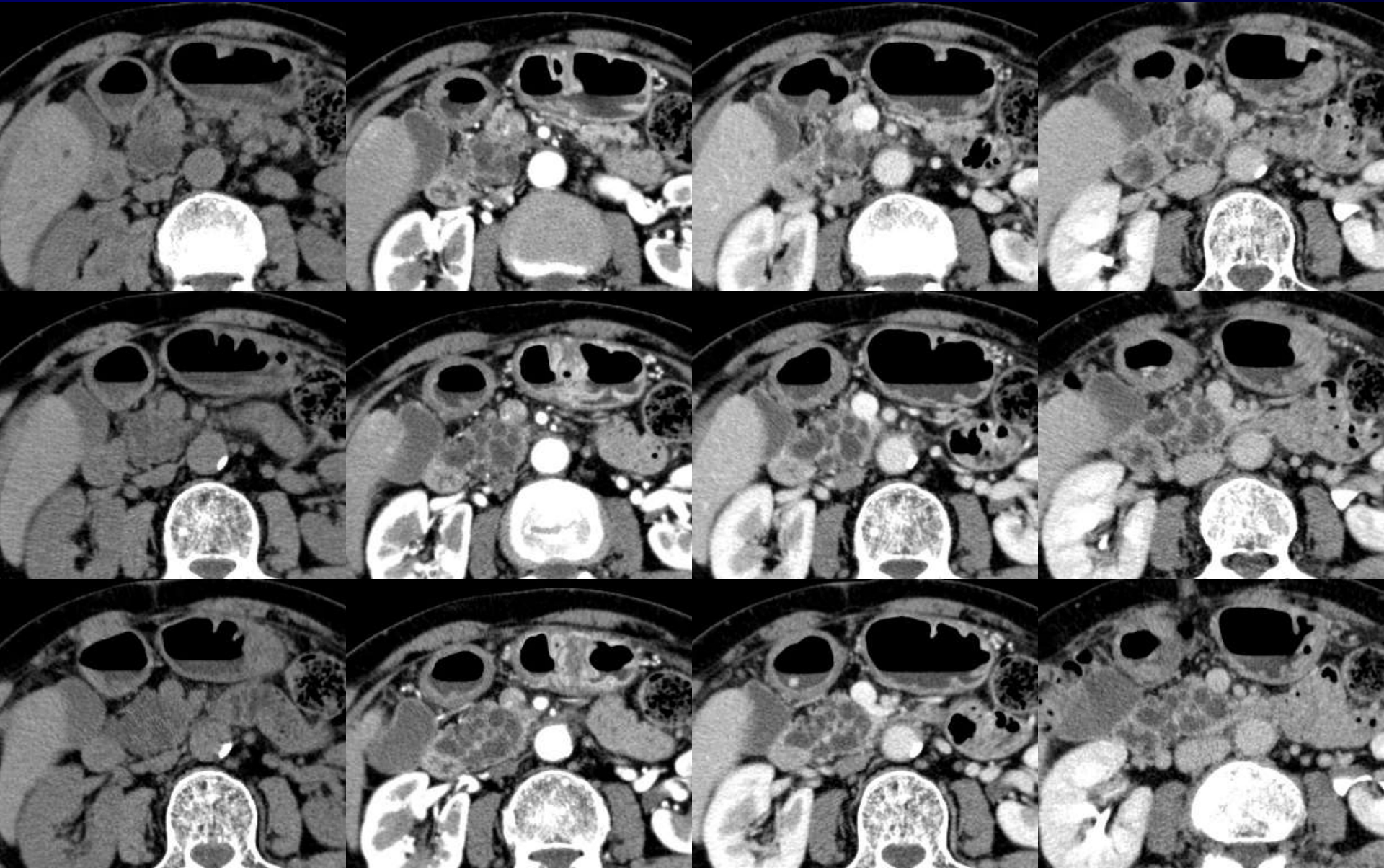
CT (1)

単純

脾実質相

門脈相

平衡相



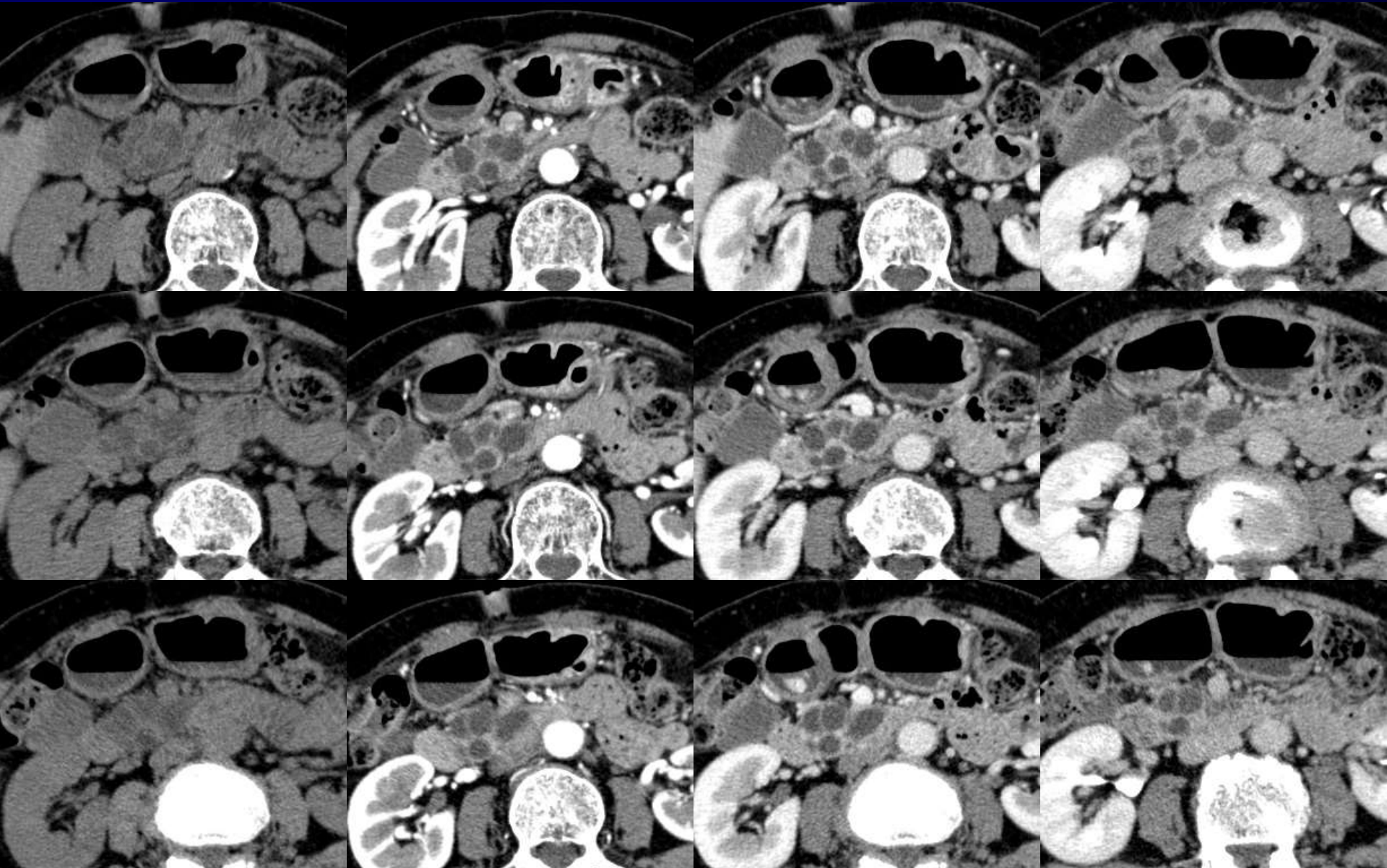
CT (2)

単純

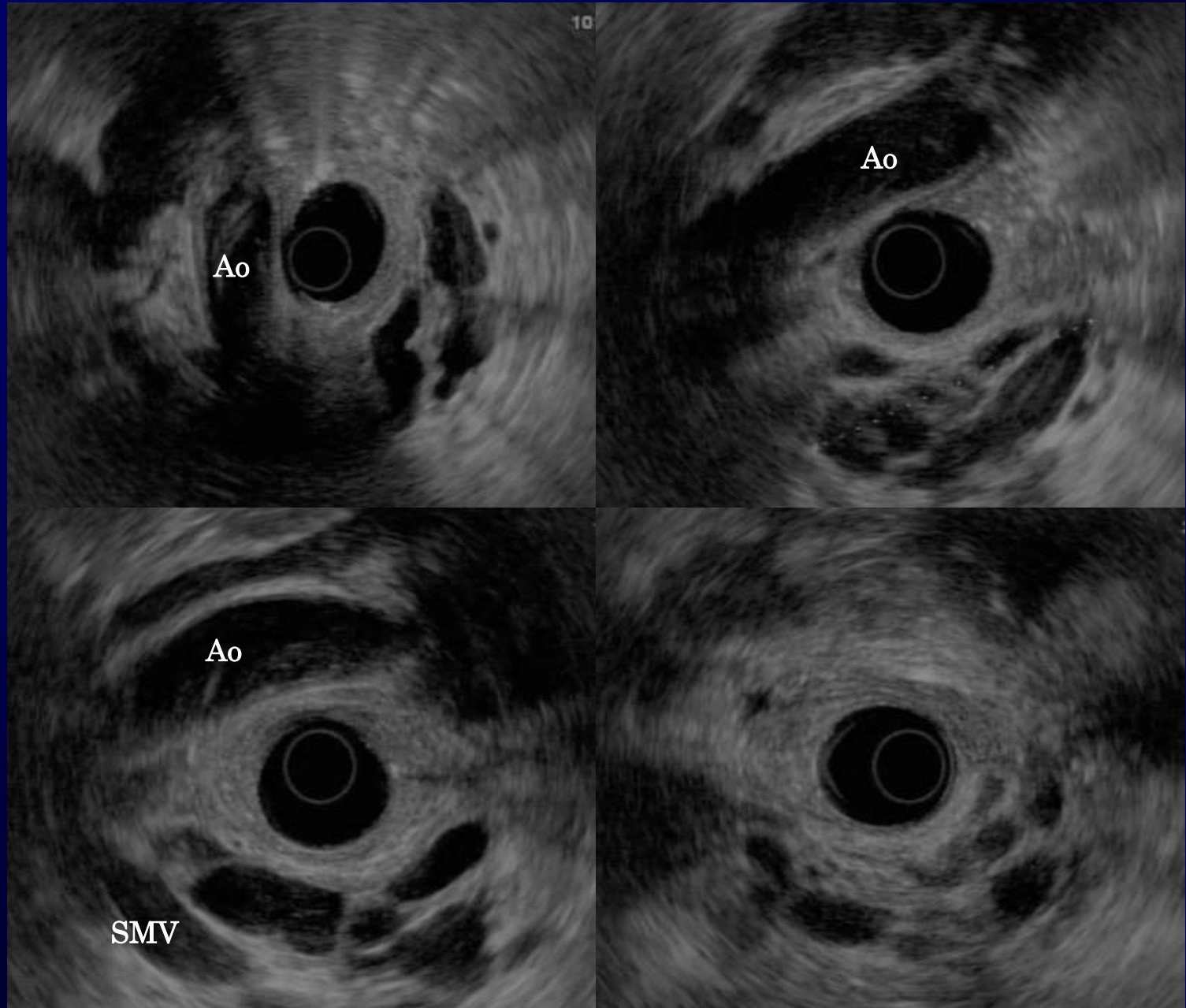
脾実質相

門脈相

平衡相



EUS





Q2 ERCPを行うか？

1. 行う

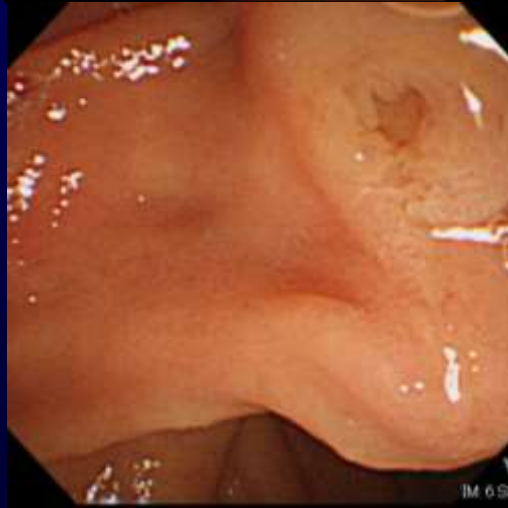
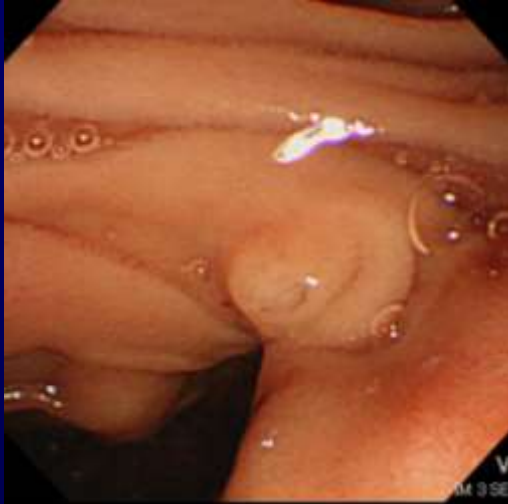


2. 行わない



ERCP

minor papilla



major papilla



膵液吸引細胞診: class I

Q3 細胞診を行う場合の方法は？

1. 膵液吸引細胞診
30%
2. ブラシ細胞診・膵管生検
8%
3. ENPD tubeを留置し連続細胞診
53%
4. 膵管鏡(POPS)下細胞診
9%
5. EUS-FNA
0%



Q4 治療方針は？

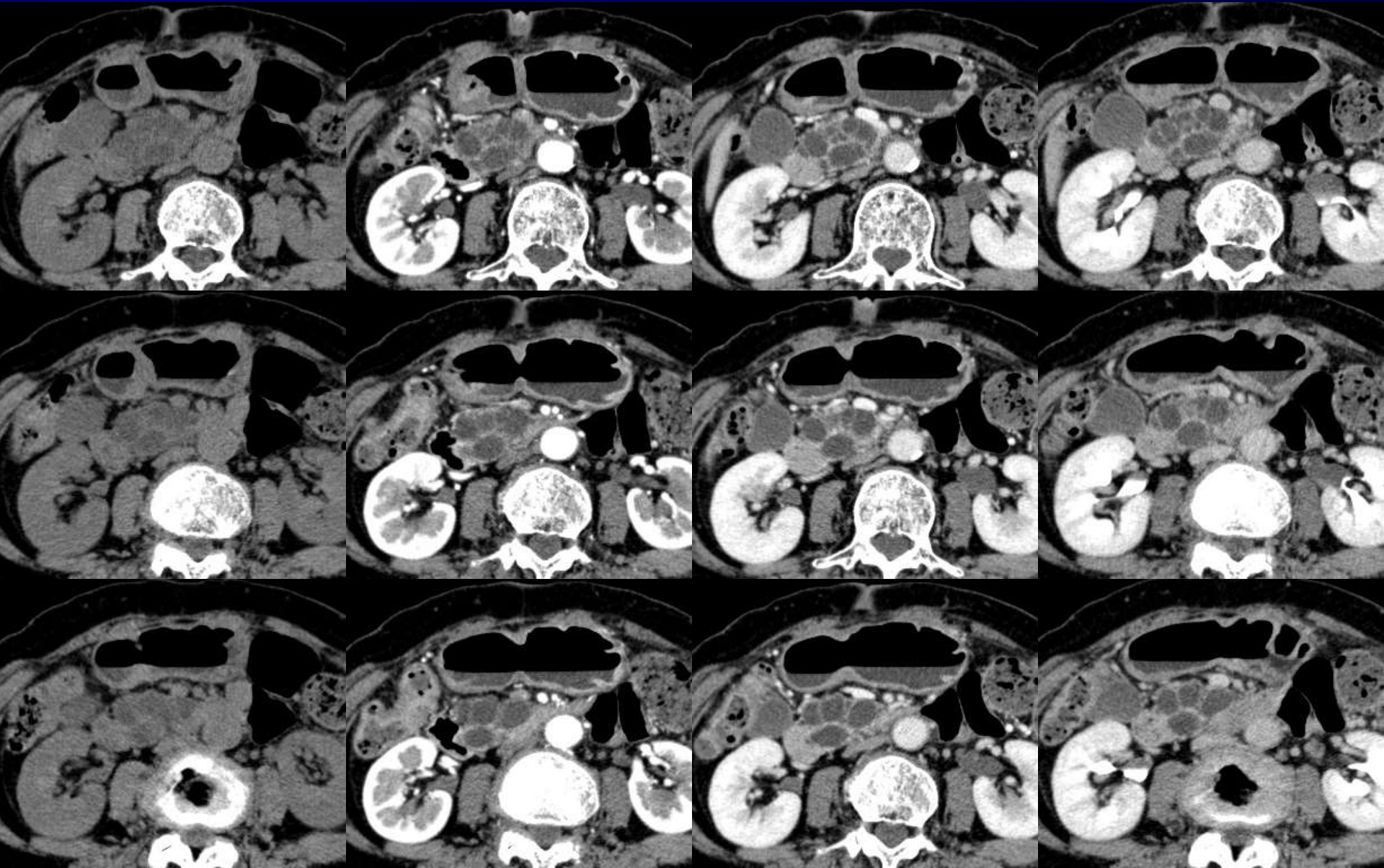
1. 手術



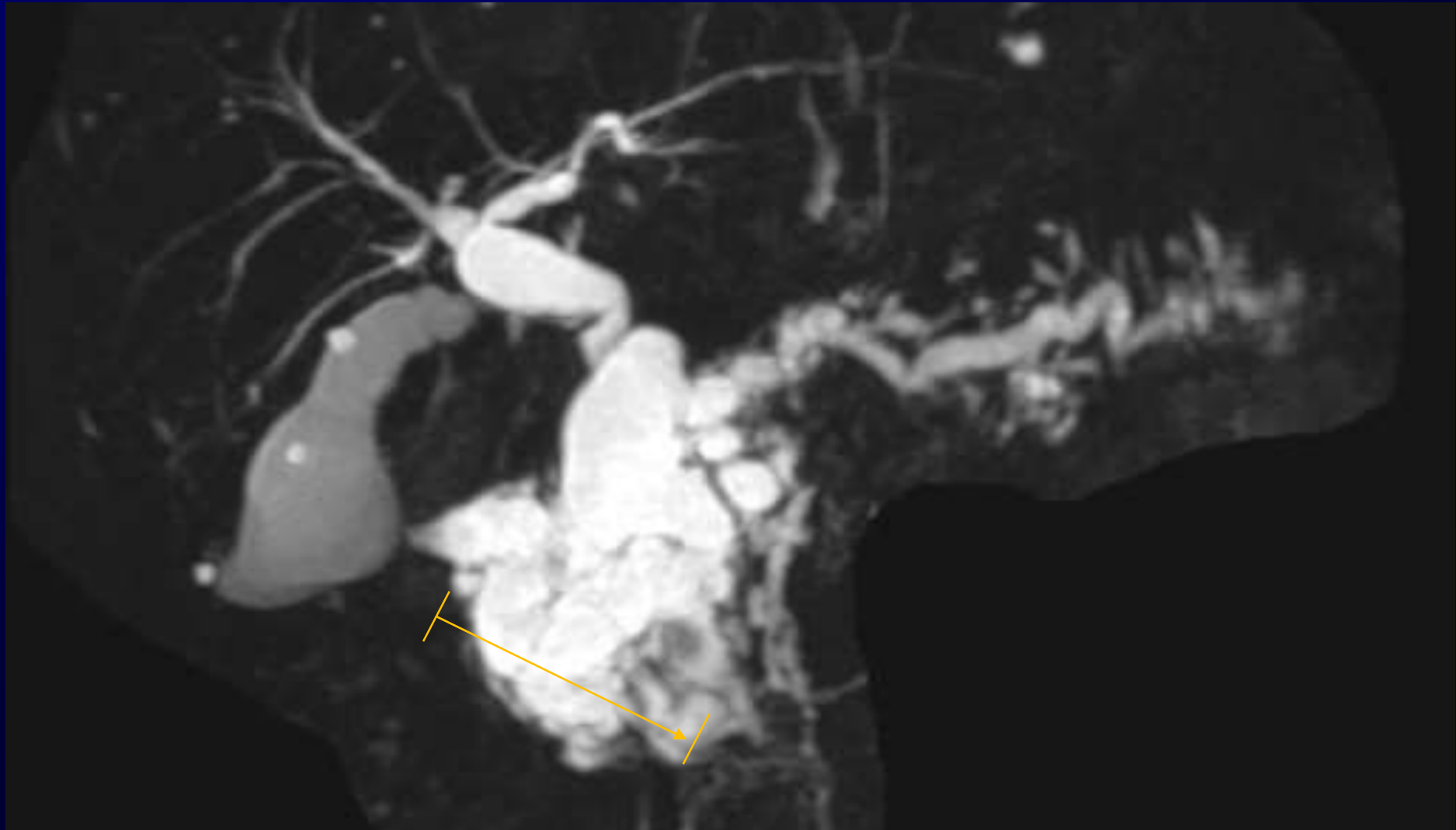
2. 経過観察



CT (1年後)



MRCP (2年後)

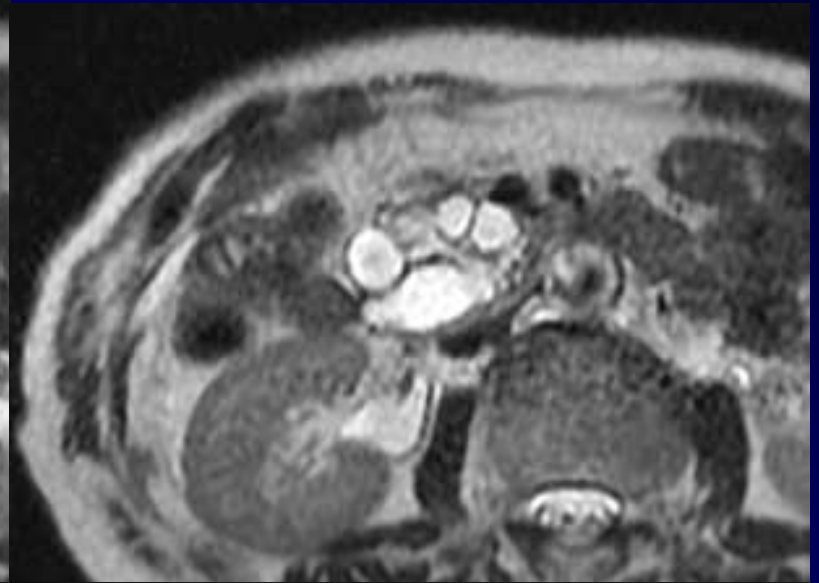


拡張分枝径(嚢胞径): 46mm

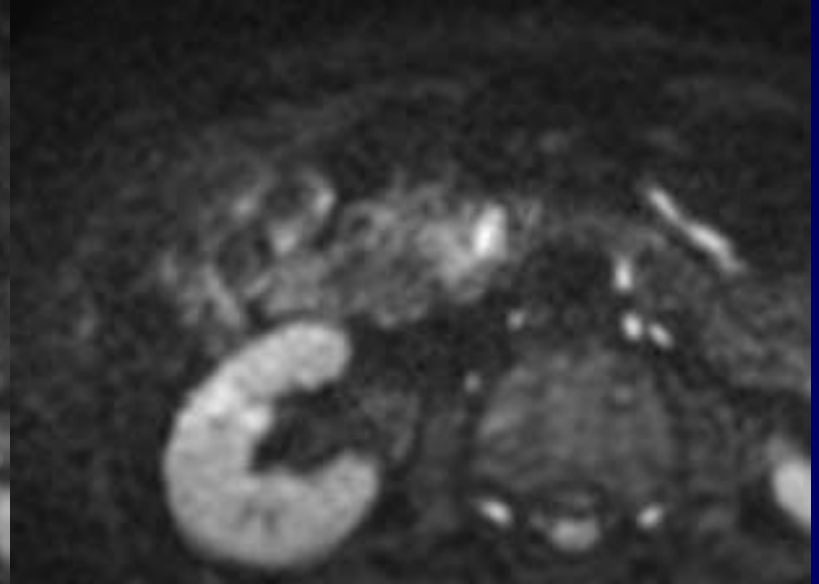
主膵管径: ①10mm, ③5mm

MRI (2年後)

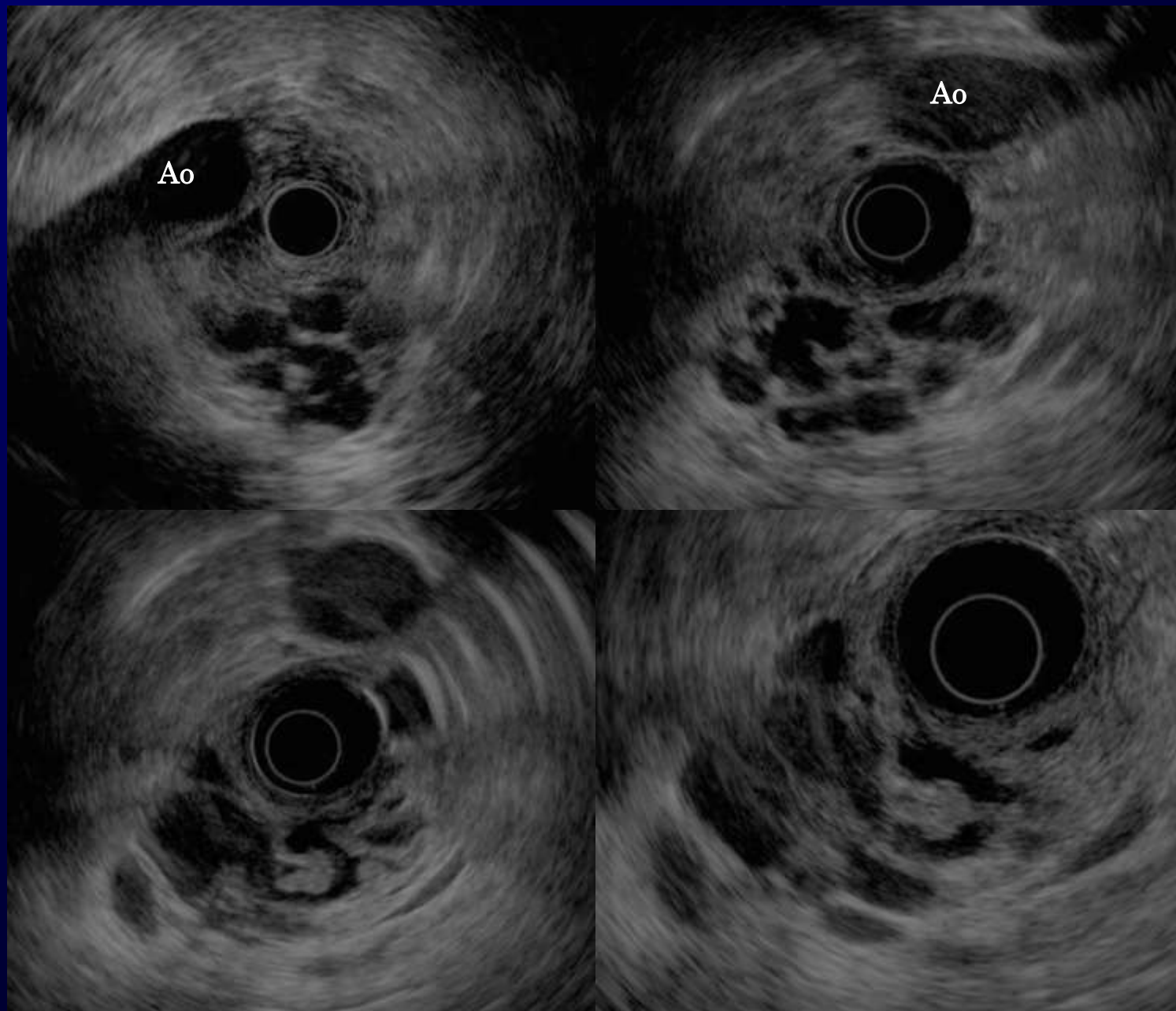
T2WI



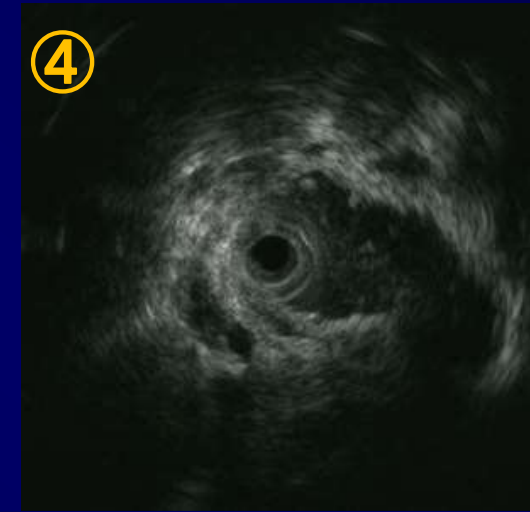
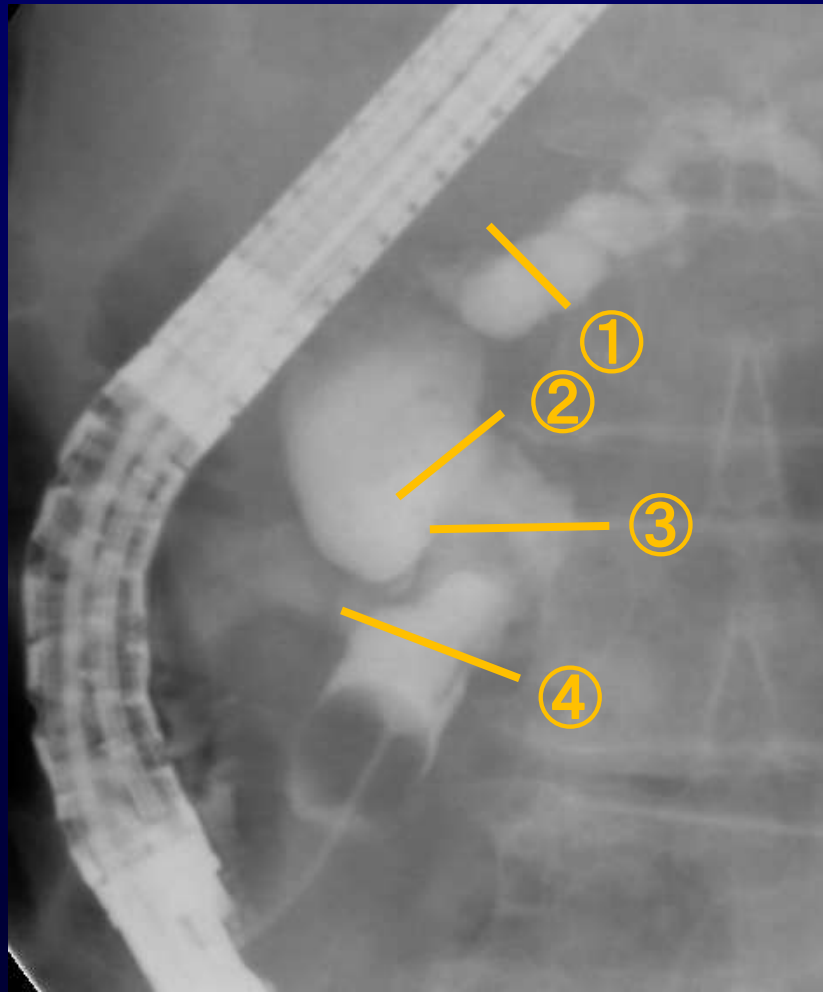
DWI



EUS (2年後)



ERCP+IDUS (2年後)



膵液吸引細胞診: class II

Q5 治療方針は？

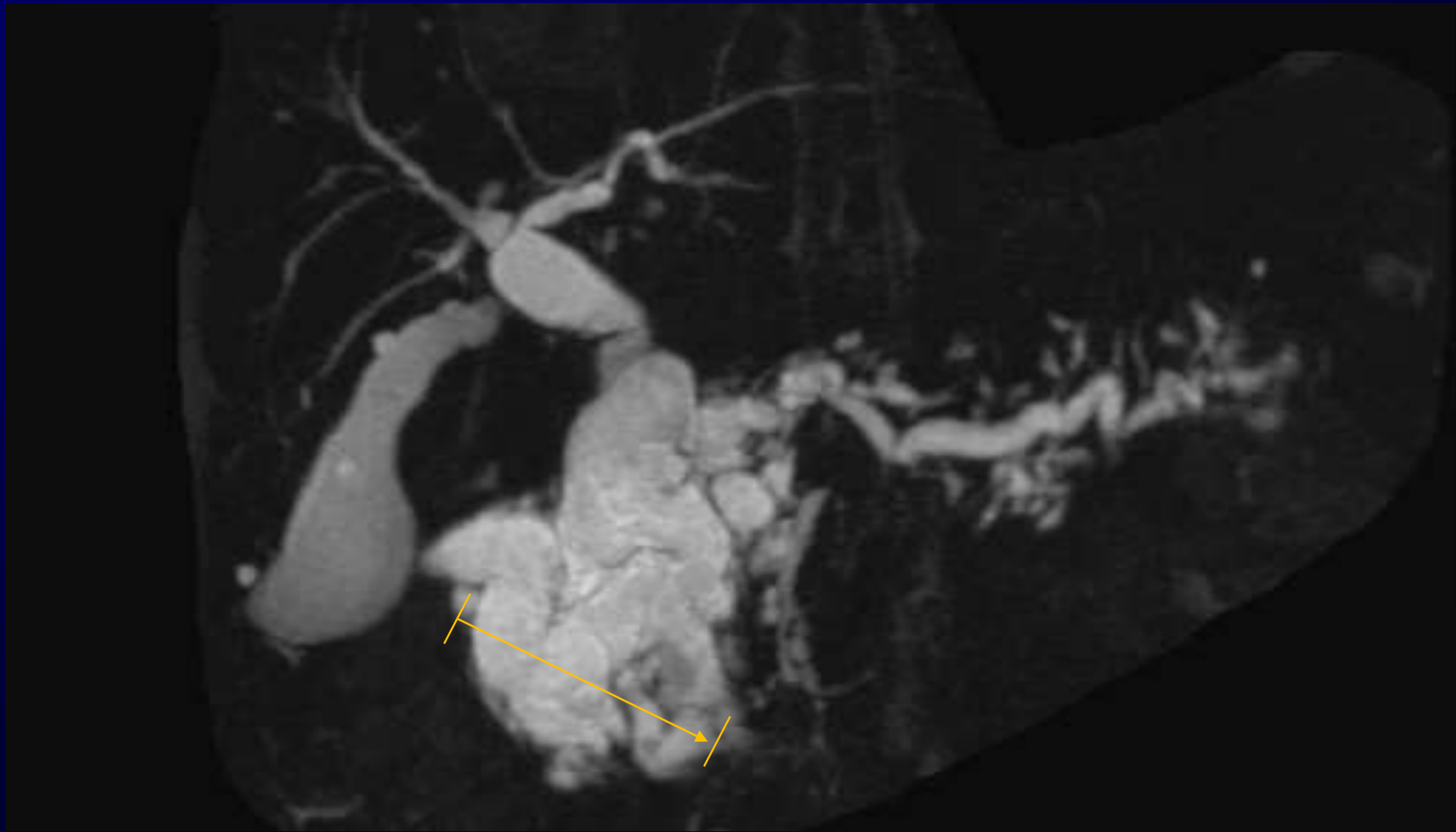
1. 手術



2. 経過観察継続



MRCP (3年後)

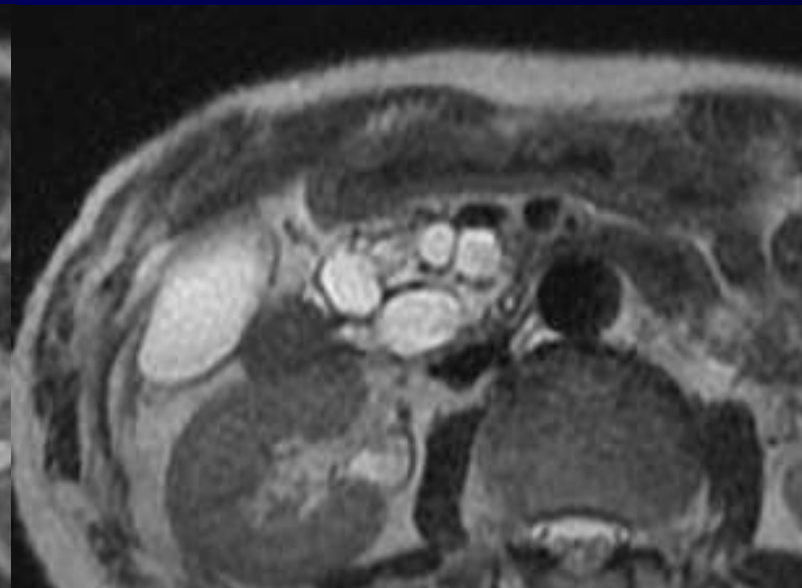
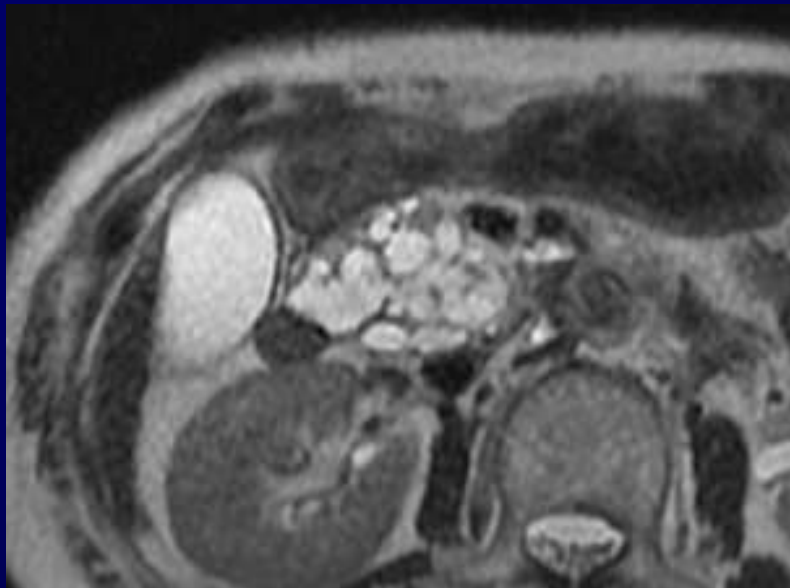


拡張分枝径(嚢胞径): 46mm

主膵管径: ①11mm, ③5mm

MRI (3年後)

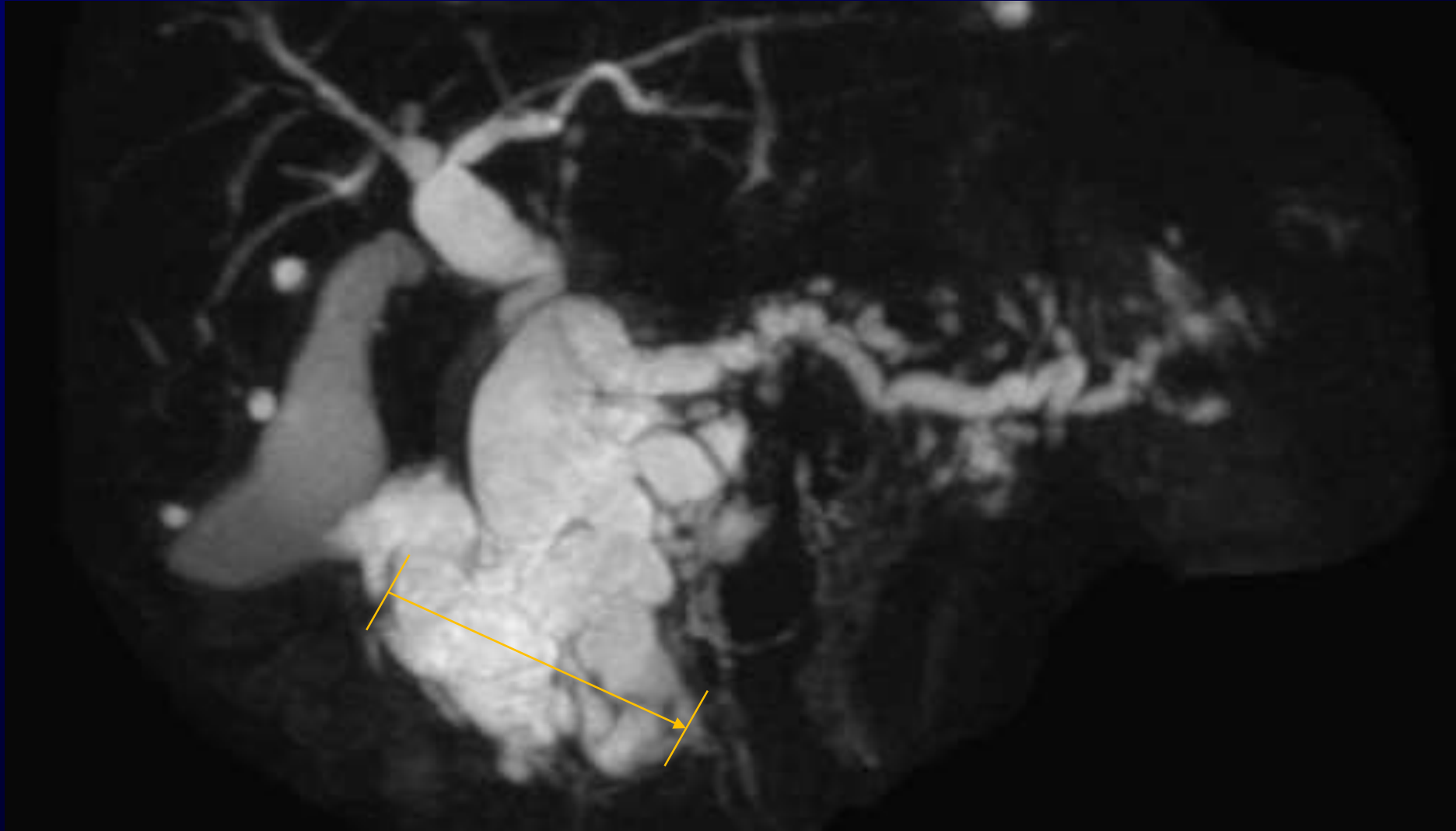
T2WI



DWI



MRCP (4年後)

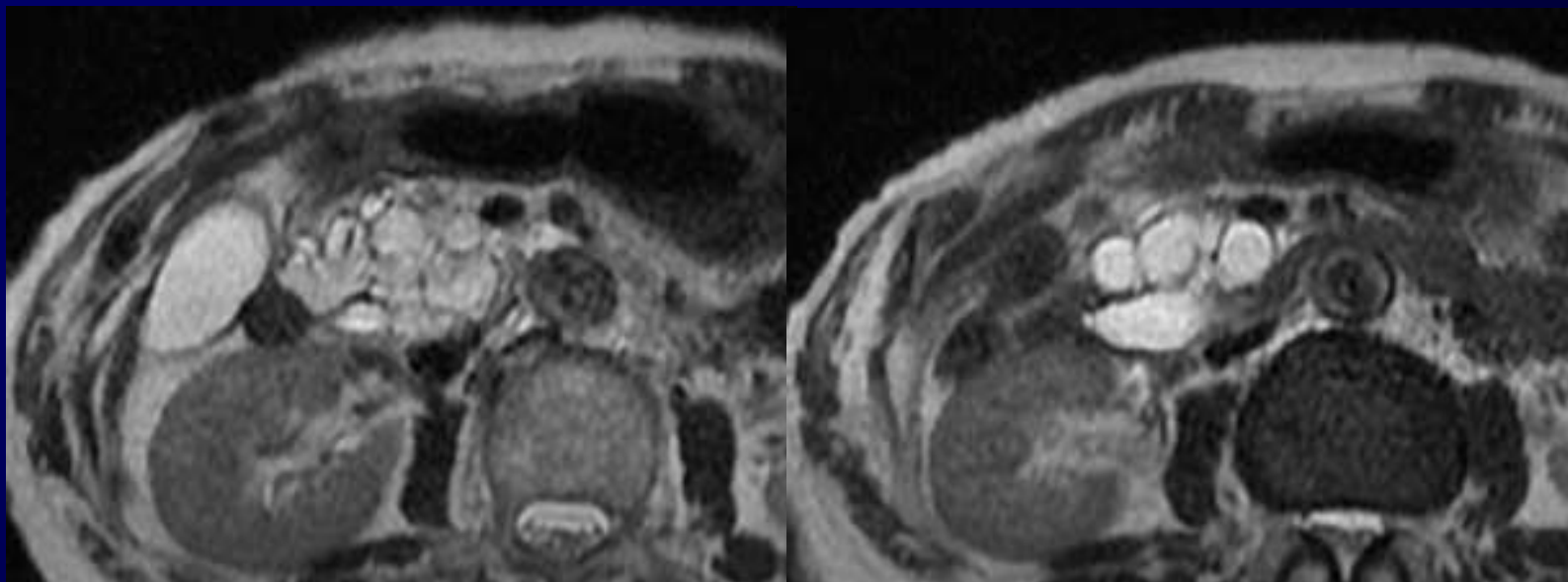


拡張分枝径(嚢胞径): 50mm

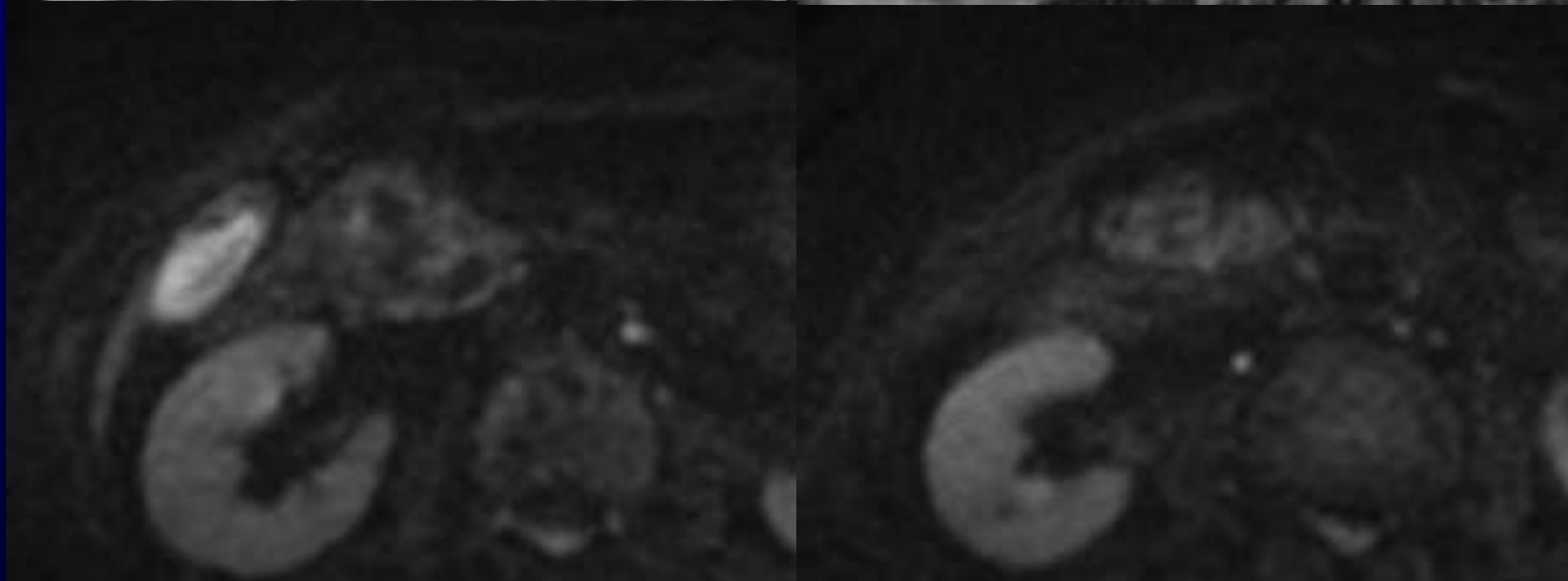
主膵管径: ①13mm, ③5mm

MRI (4年後)

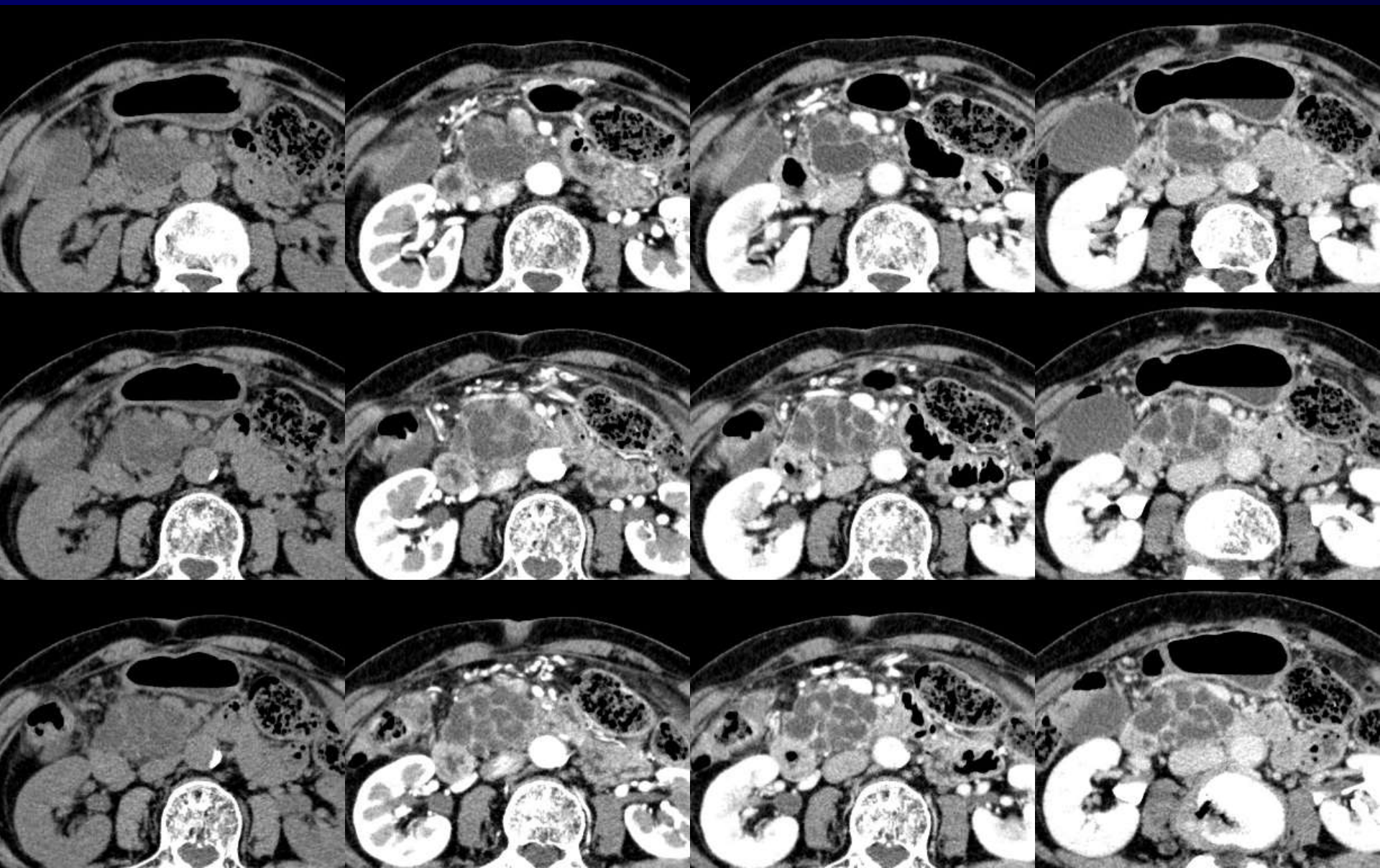
T2WI



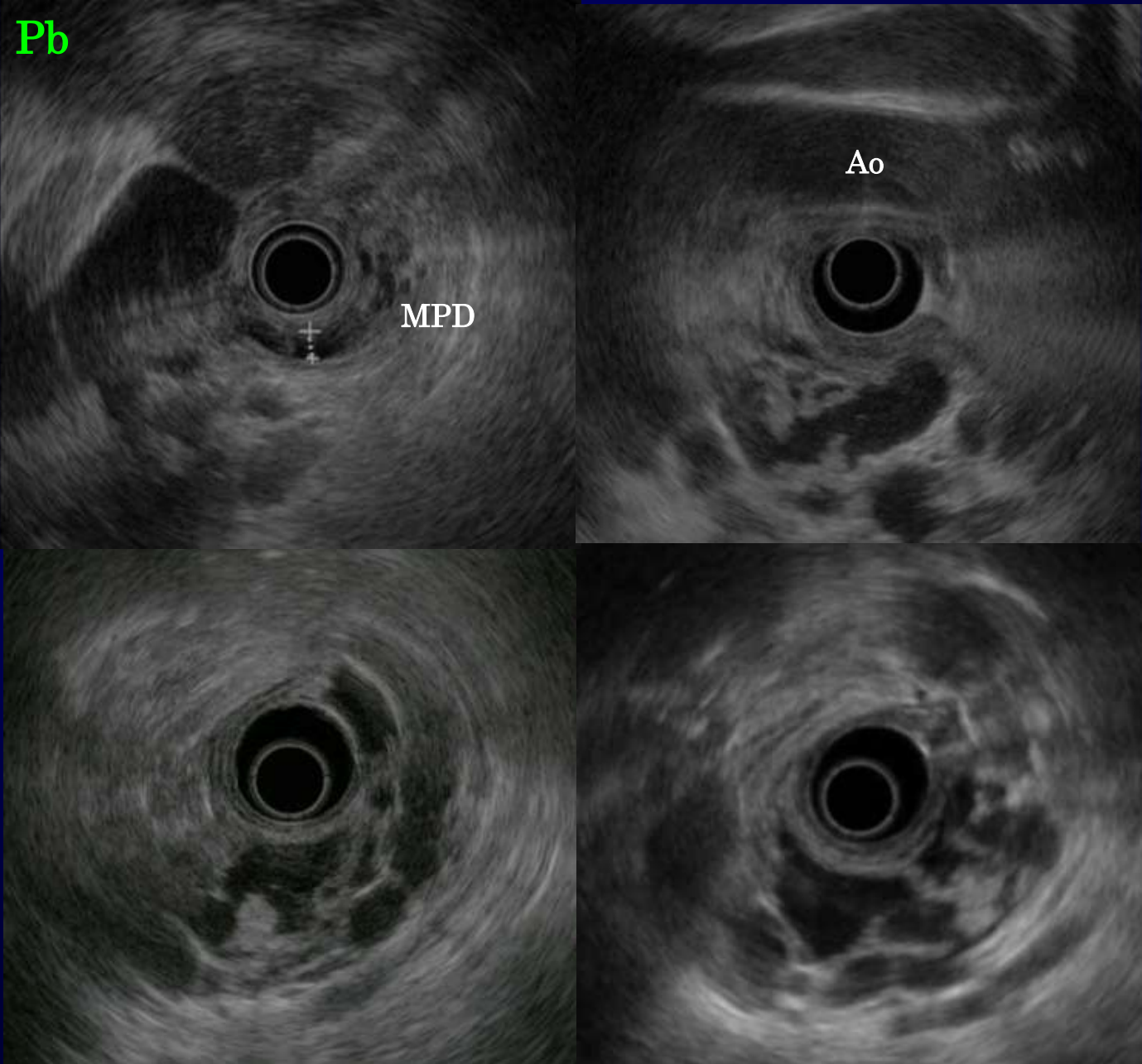
DWI



CT(4年後)



EUS (4年後)



Laboratory data on admission (4年後)

Peripheral blood

| | |
|-----|------------------------------|
| WBC | 8170 / μ l |
| RBC | 387 $\times 10^4$ / μ l |
| Hb | 11.9 g/dl |
| Plt | 13.9 $\times 10^4$ / μ l |

Coagulofibrinolysis

| | |
|----|--------|
| PT | 96.6 % |
|----|--------|

Tumor markers

| | |
|--------|-----------|
| CEA | 2.5 ng/ml |
| CA19-9 | 0.8 U/ml |

Blood chemistry

| | |
|--------------|------------|
| T.P. | 7.7 g/dl |
| T.Bil. | 0.7 mg/dl |
| D.Bil | 0.2 mg/dl |
| AST | 22 IU/l |
| ALT | 14 IU/l |
| ALP | 212 IU/l |
| LDH | 143 IU/l |
| γ GTP | 18 IU/l |
| BUN | 12.4 mg/dl |
| Cr | 0.39 mg/dl |
| Glu | 99 mg/dl |
| HbA1c | 5.8 |
| CRP | 1.05 mg/dl |

ERCP (4年後)





Q6 ERCPに引き続いて行う検査は？

1. 細胞診



2. 生検＋細胞診



3. IDUS＋細胞診



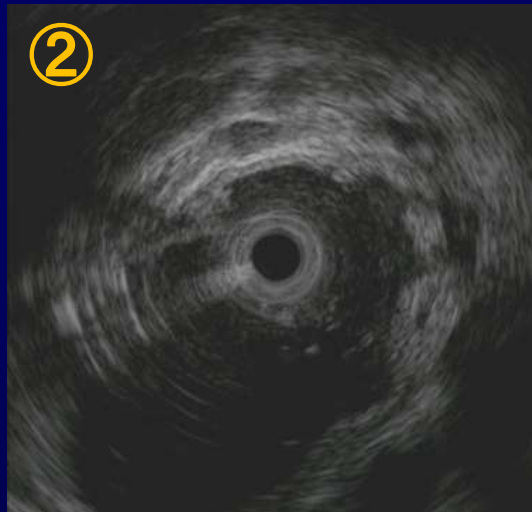
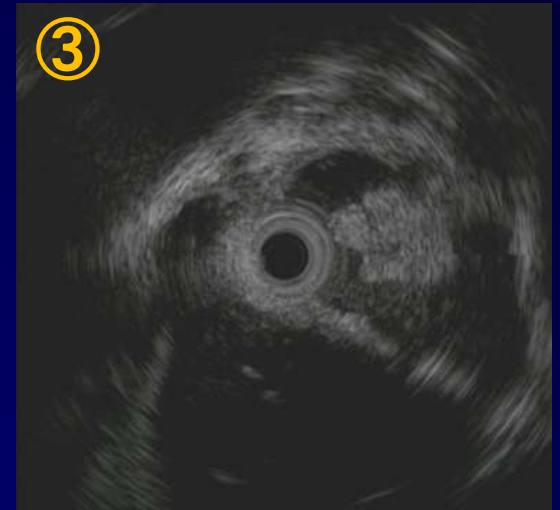
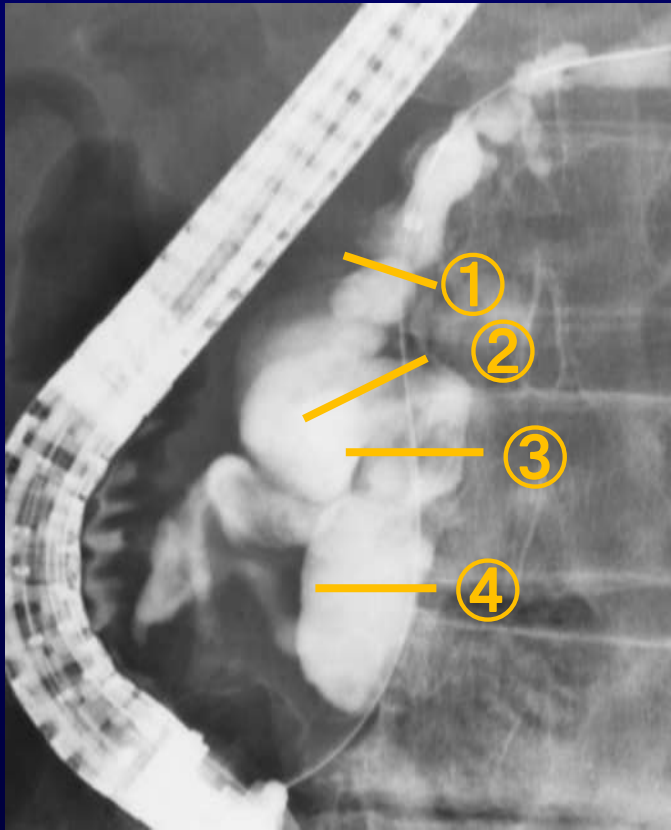
4. IDUS＋生検＋細胞診



5. IDUS＋膵管鏡(POPS)＋生検＋細胞診



IDUS+靛管生検+ENPD細胞診



靛管生検 : IPMA相当 ENPD細胞診 : Class II (3回)



Q8 術式は？

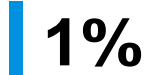
1. PD



2. 痔全摘



3. その他



Blank

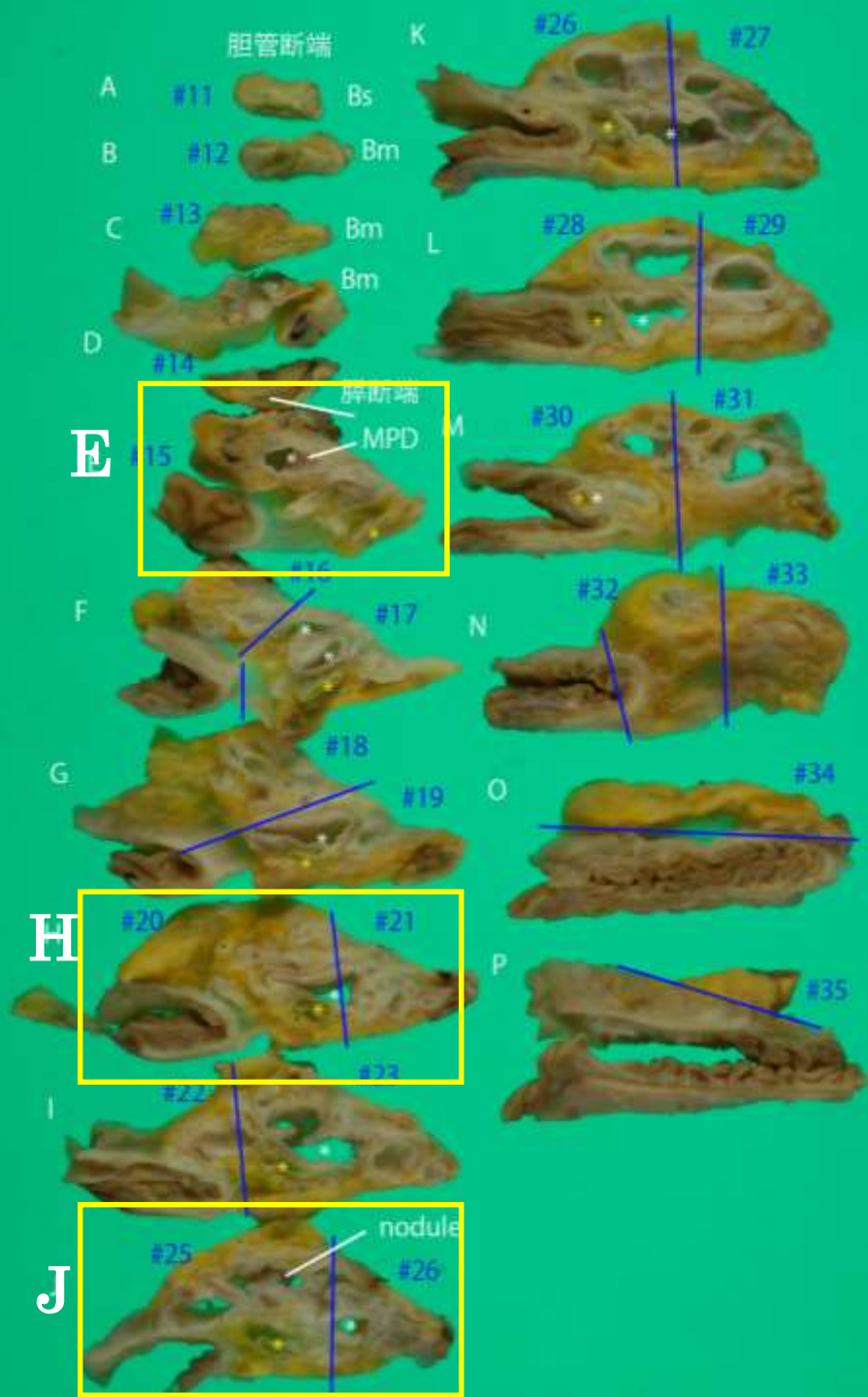
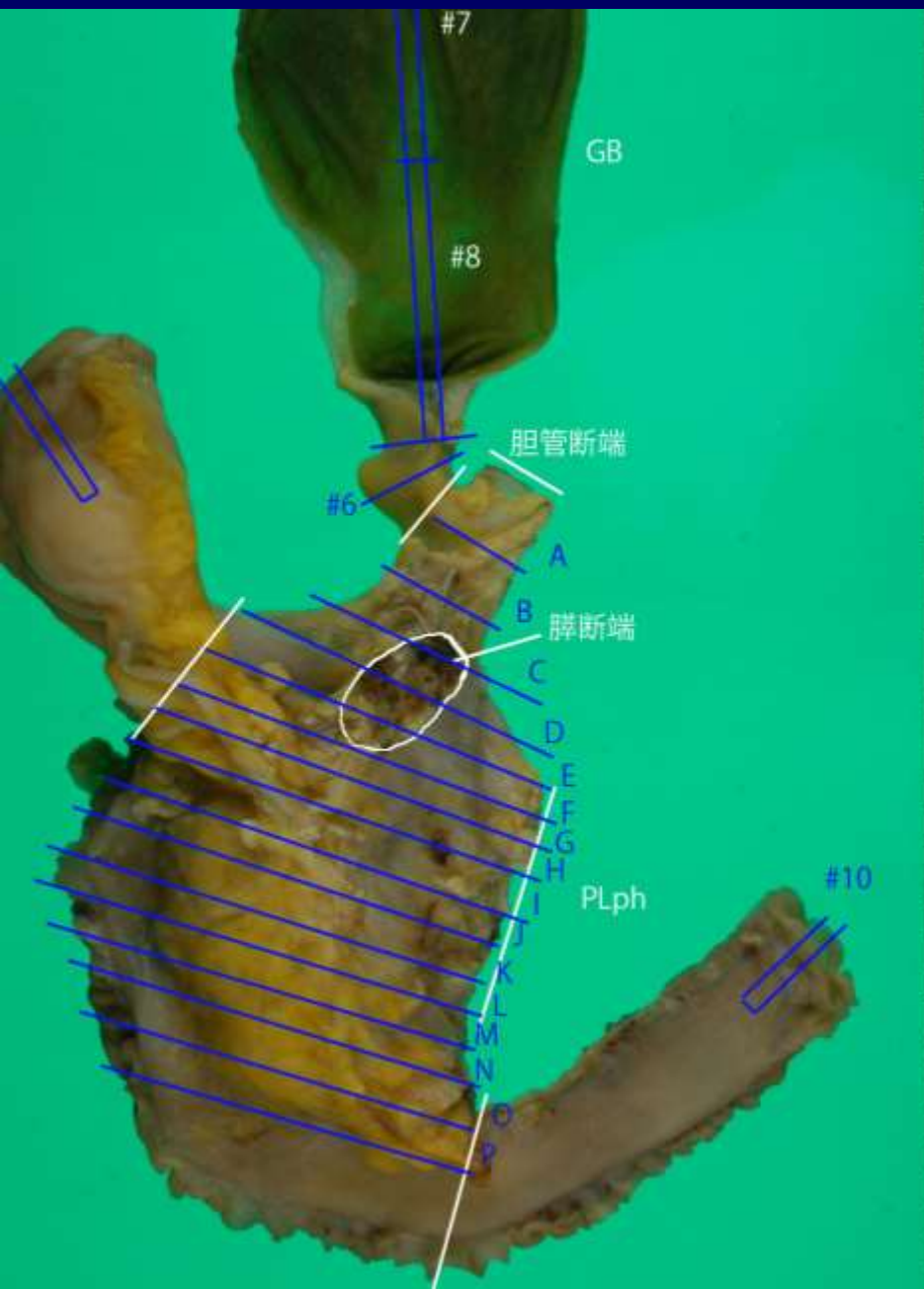
SSPPD

(Sub-total Stomach Preserving Pancreaticoduodenectomy)

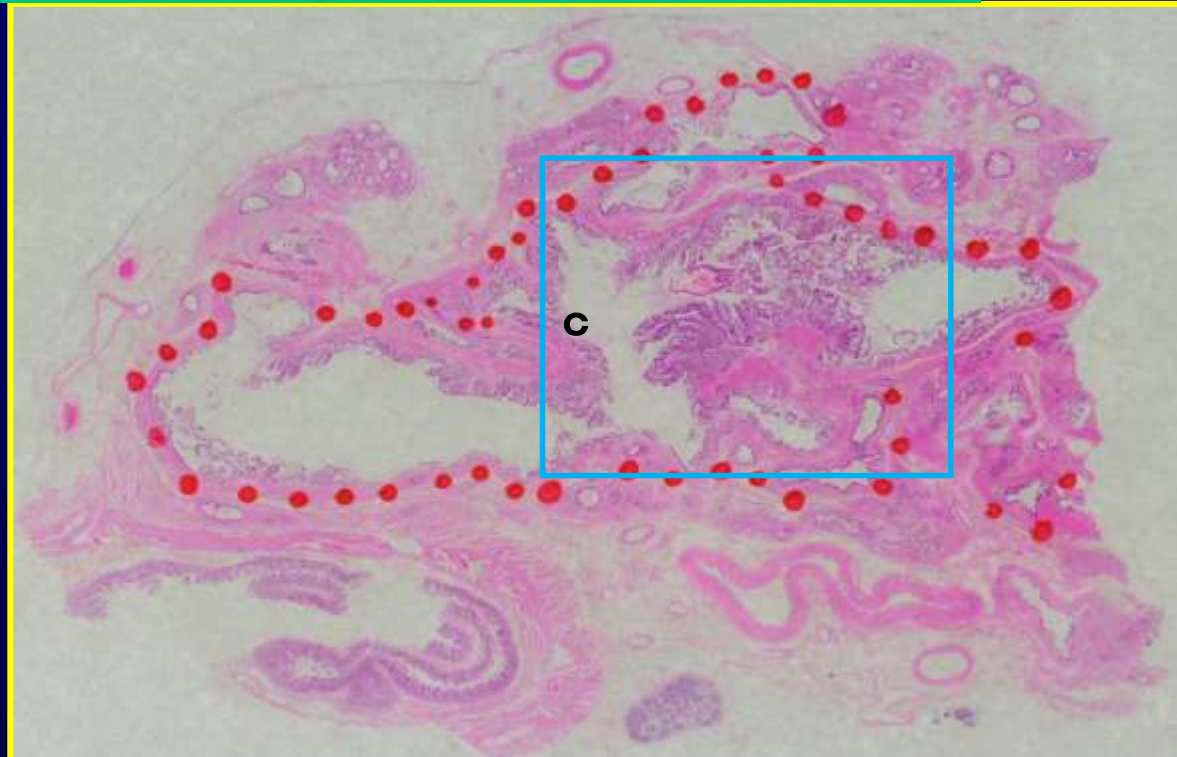
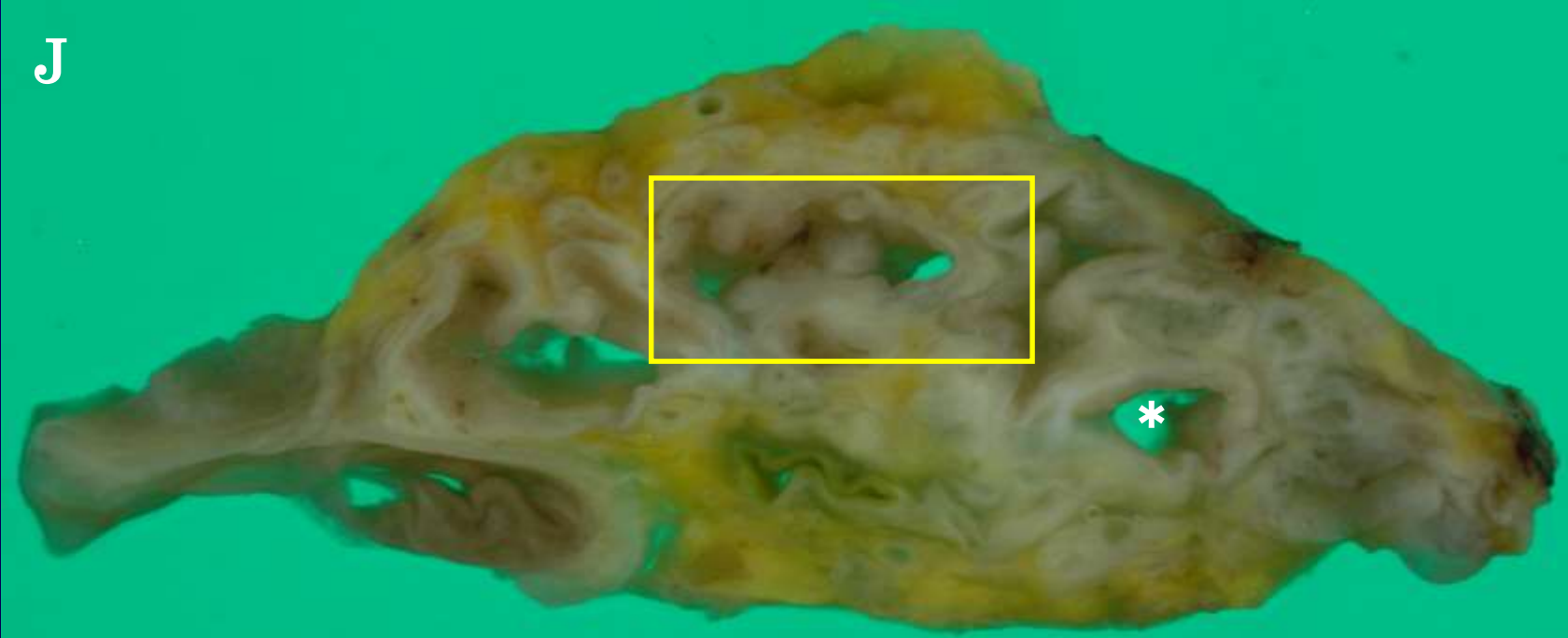
標本造影

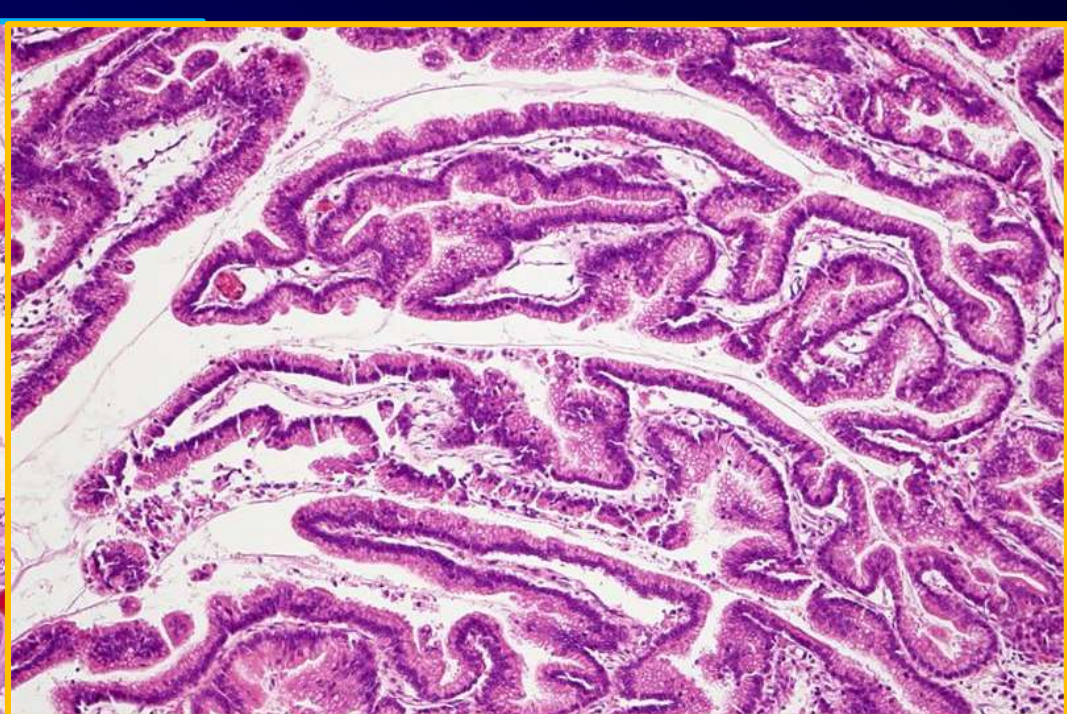
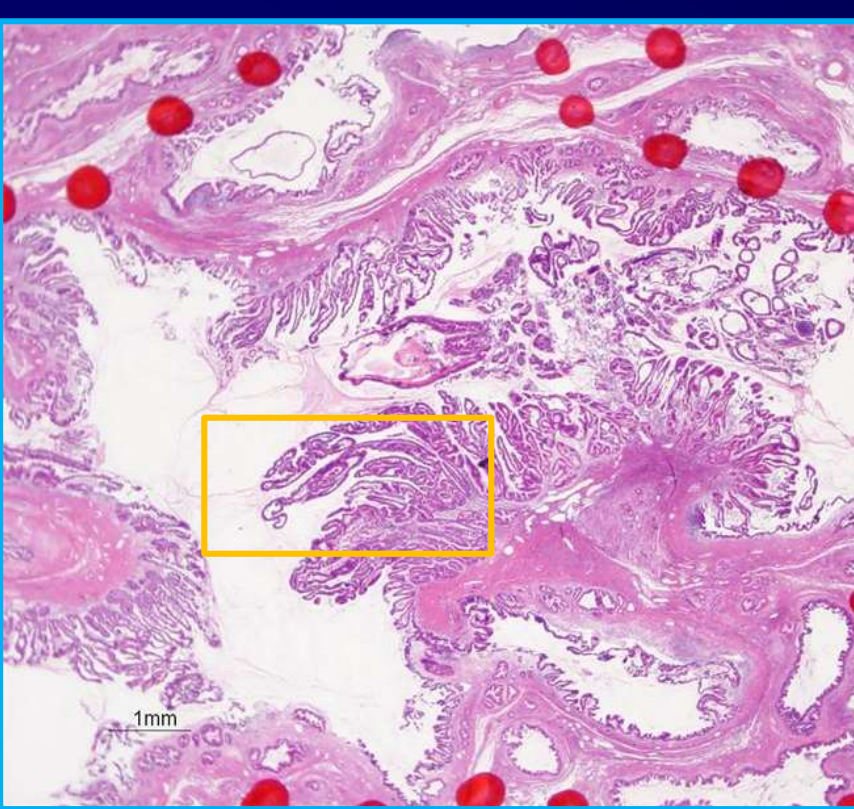


切り出し



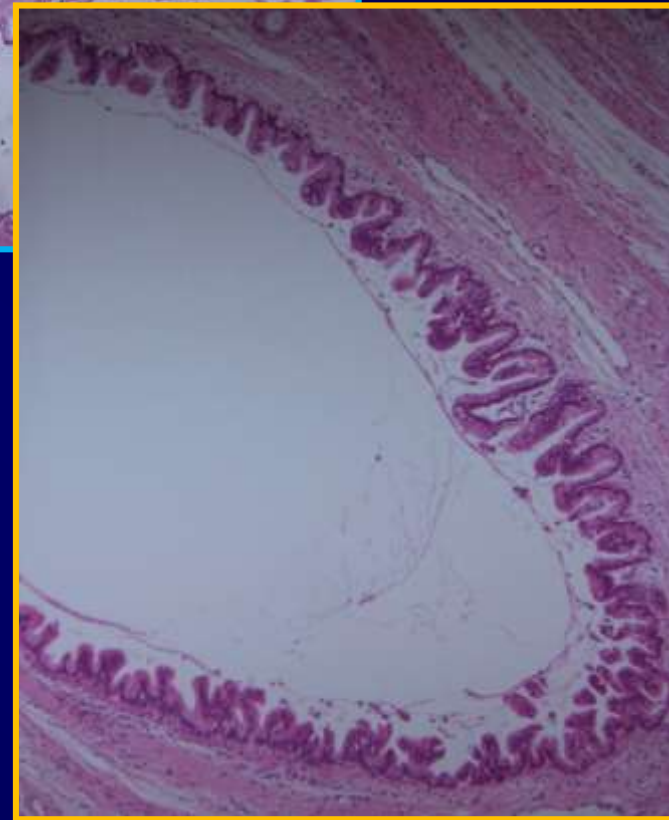
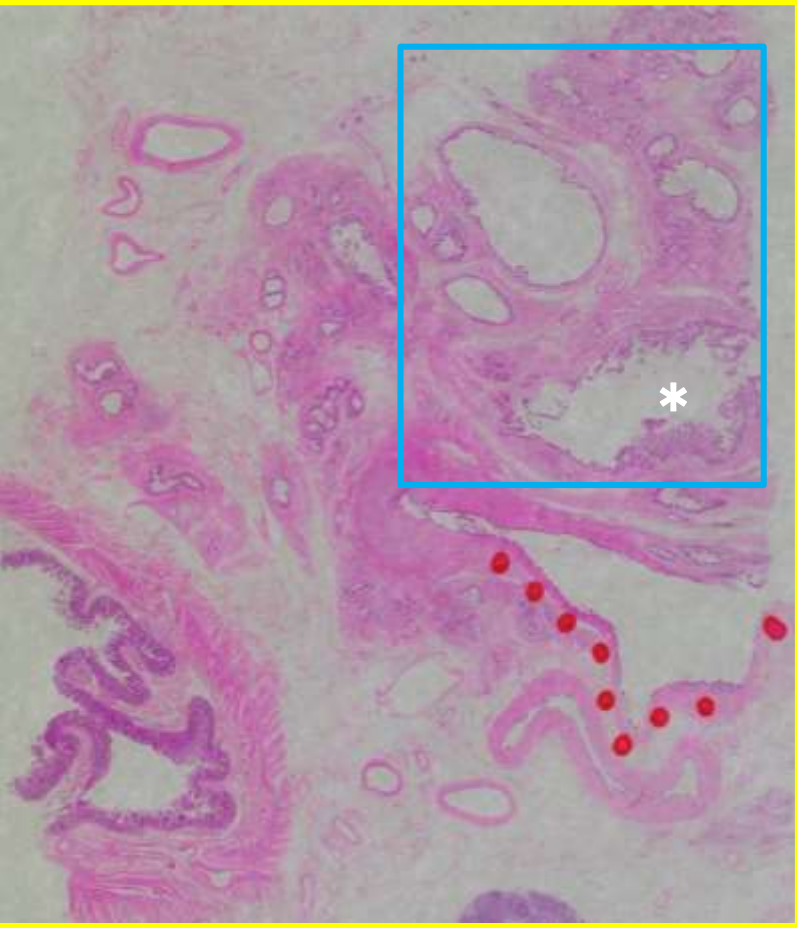
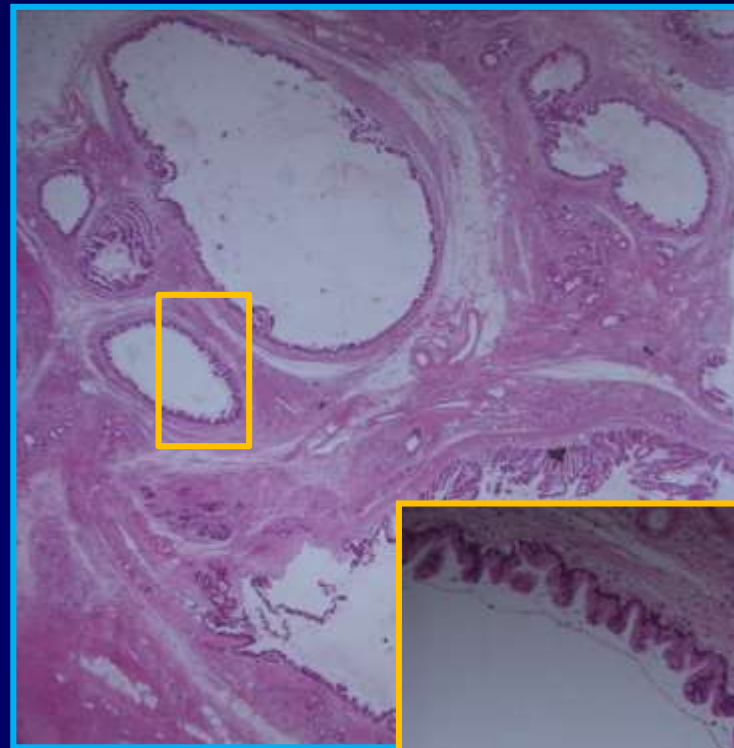
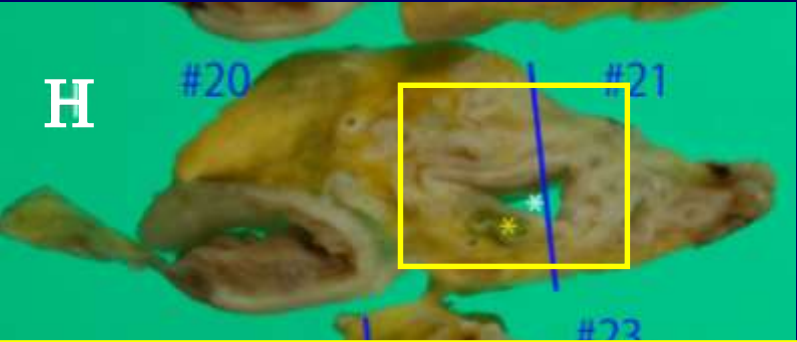
J





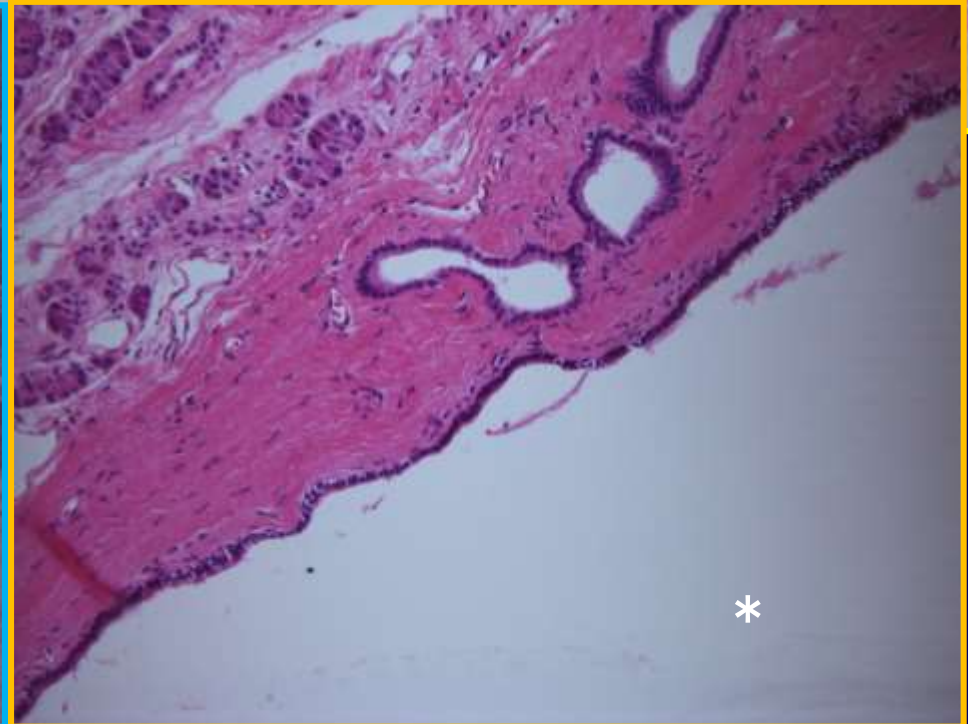
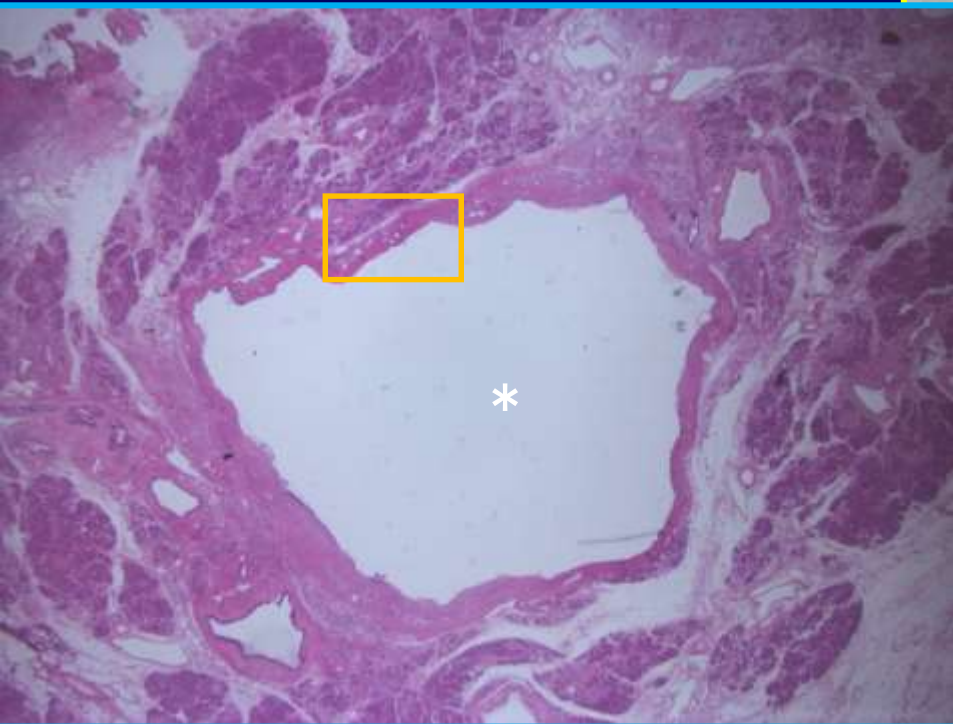
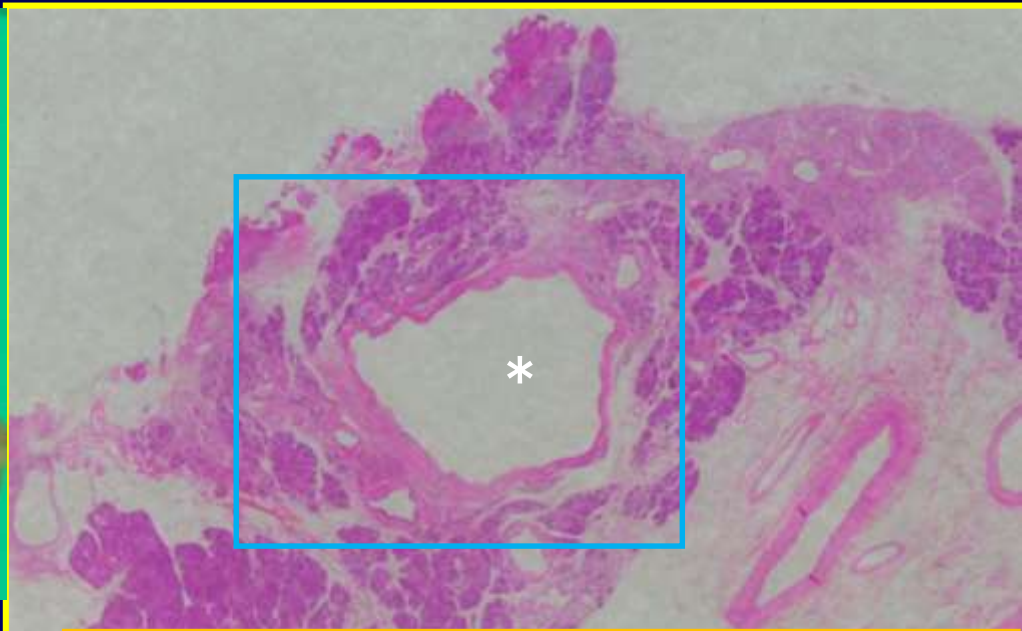
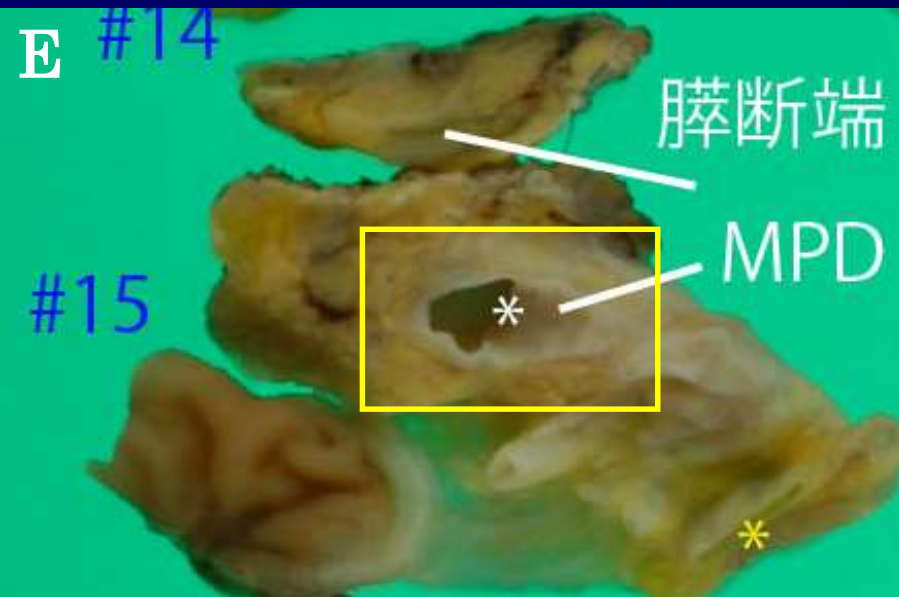
IPMC

IPMN with high-grade dysplasia



IPMA

IPMN with low-grade dysplasia



Stump of main pancreatic duct : Surgical margin is negative.

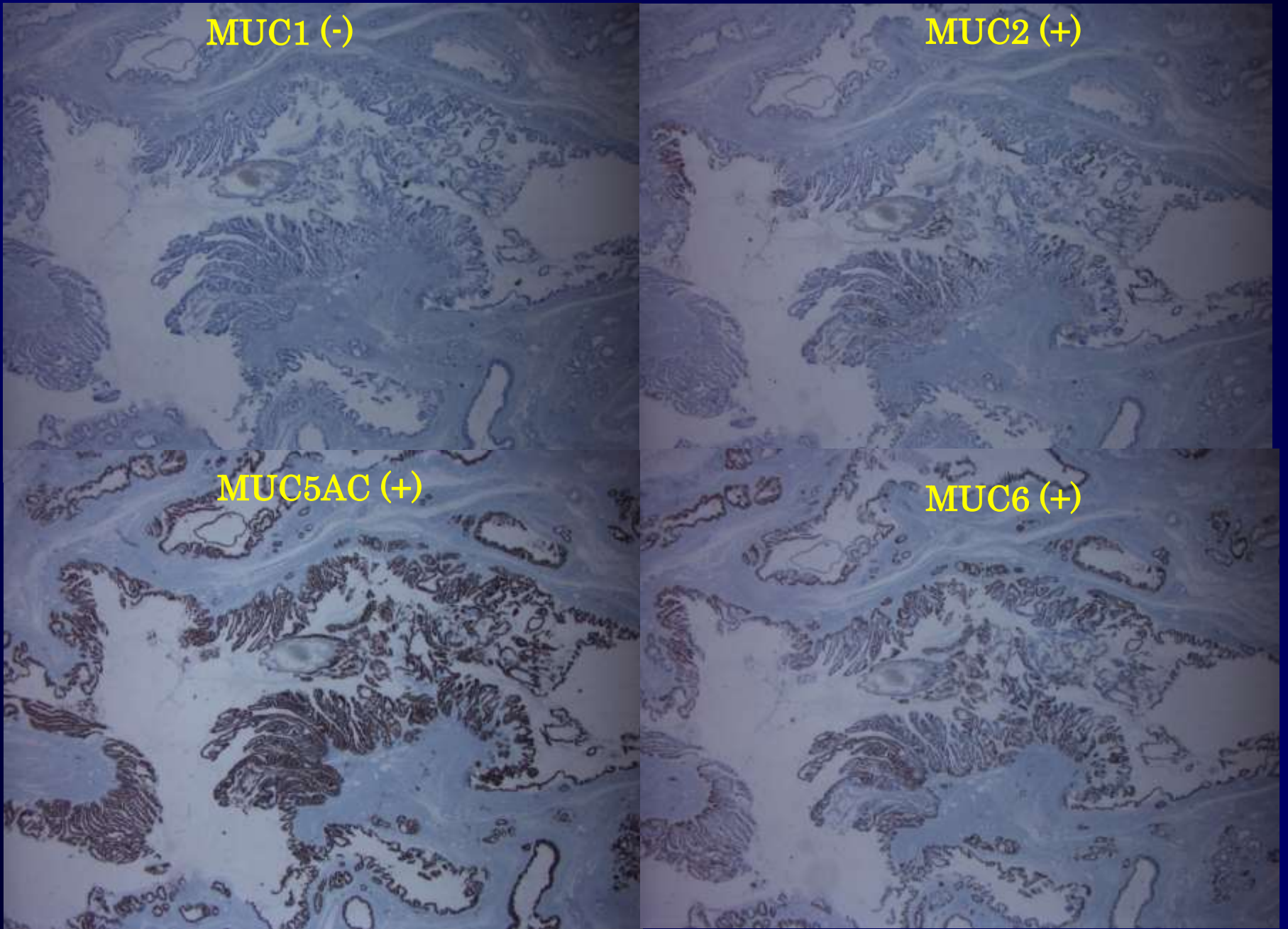
MUC1 (-)

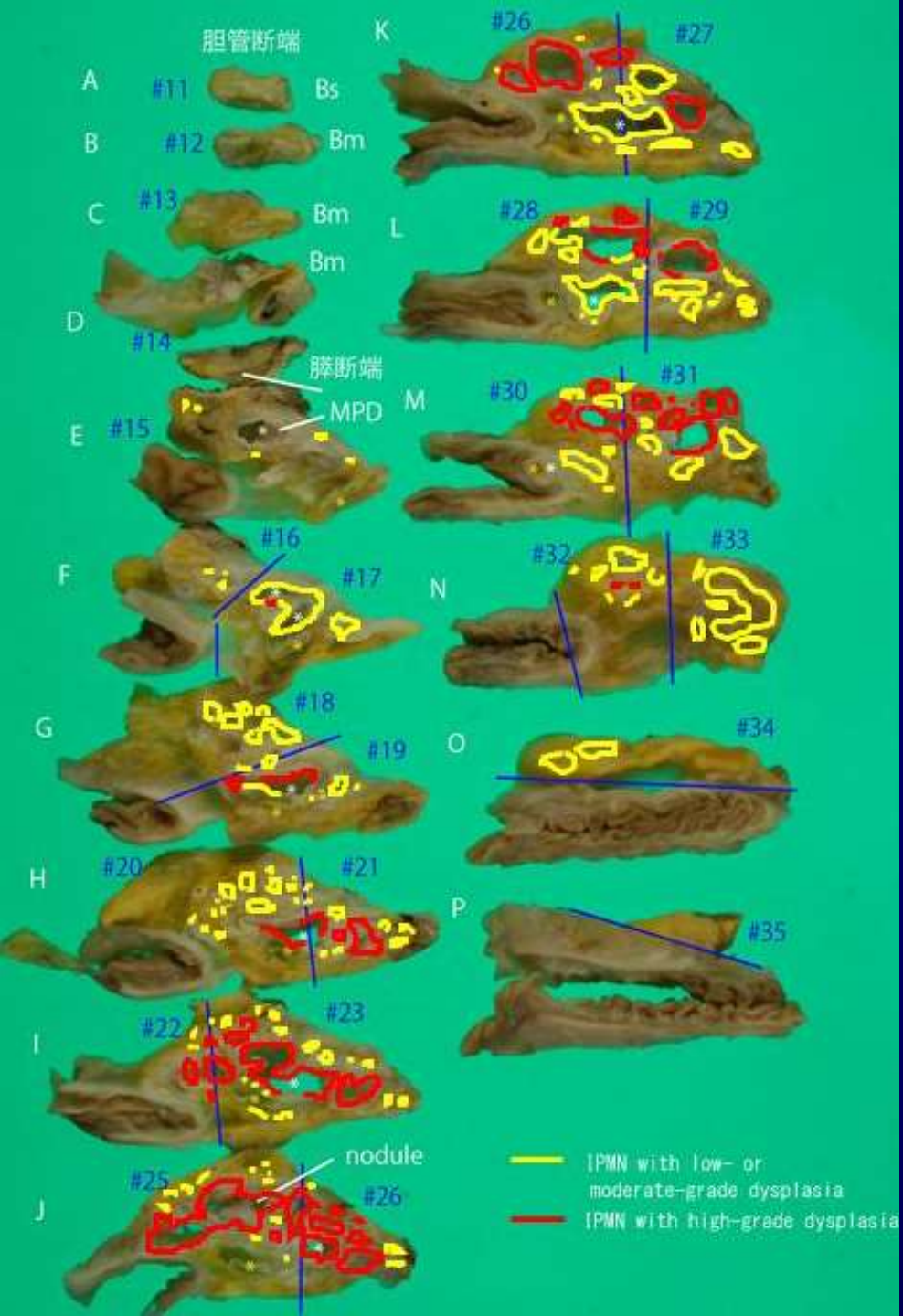
MUC2 (+)

MUC5AC (+)

MUC6 (+)

腸型, 胃幽門腺型





最終診断

分枝型IPMC(noninvasive)

Blank

症 例 2

患者 70歳 男性

主訴 なし

既往歴 糖尿病

現病歴 糖尿病follow中のUSにて主膵管拡張を指摘され，精査目的に紹介受診となる。

Laboratory data (初診時)

Peripheral blood

| | |
|-----|------------------------------|
| WBC | 5650 / μ l |
| RBC | 501 $\times 10^4$ / μ l |
| Hb | 15.4 g/dl |
| Plt | 13.5 $\times 10^4$ / μ l |

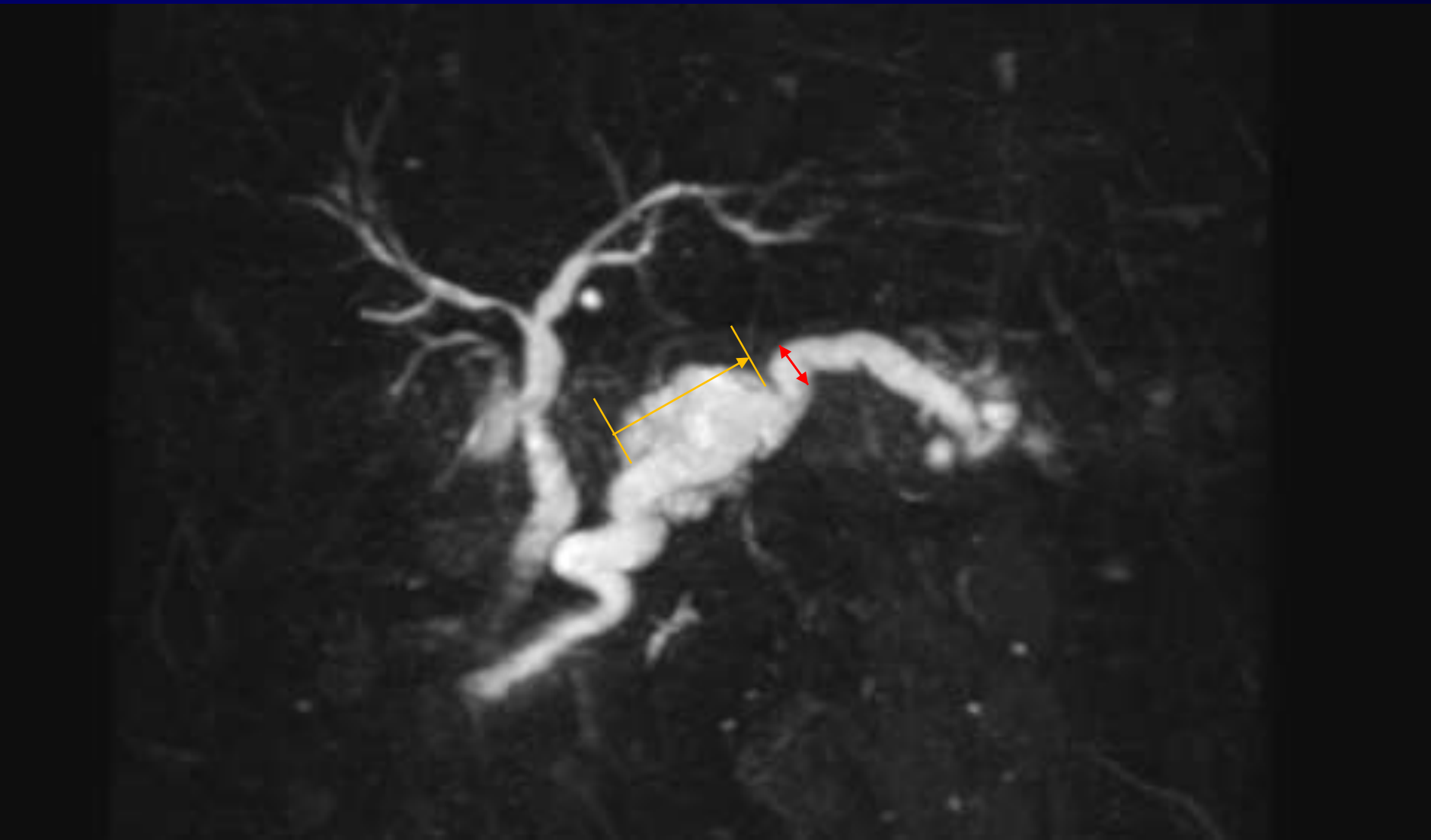
Tumor markers

| | |
|--------|-----------|
| CEA | 1.2 ng/ml |
| CA19-9 | 5.3 U/ml |

Blood chemistry

| | |
|--------------|------------|
| T.P. | 7.1 g/dl |
| T.Bil. | 0.8 mg/dl |
| D.Bil | 0.2 mg/dl |
| AST | 20 IU/l |
| ALT | 25 IU/l |
| ALP | 233 IU/l |
| LDH | 174 IU/l |
| γ GTP | 55 IU/l |
| BUN | 16.1 mg/dl |
| Cr | 0.59 mg/dl |
| Glu | 215 mg/dl |
| HbA1c | 8.1 |
| CRP | 0.15 mg/dl |

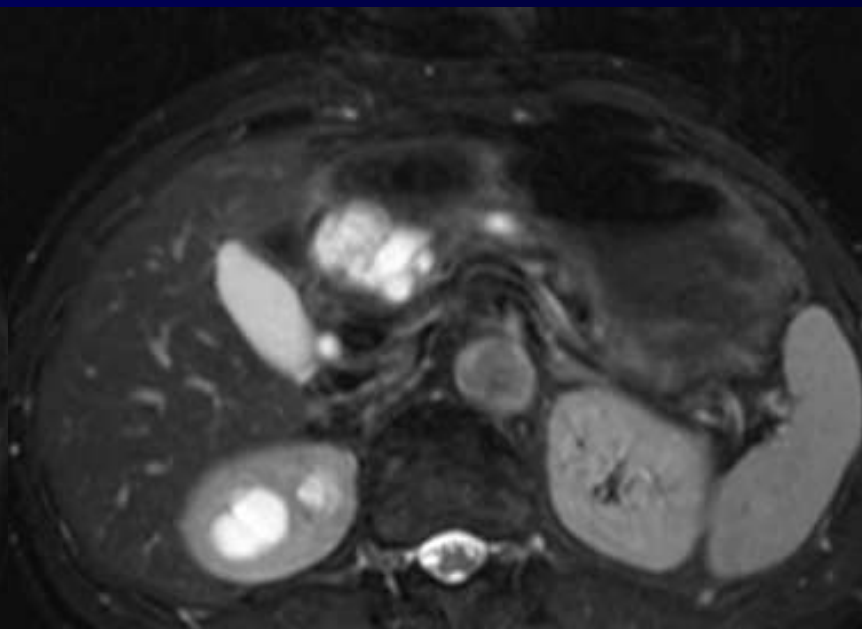
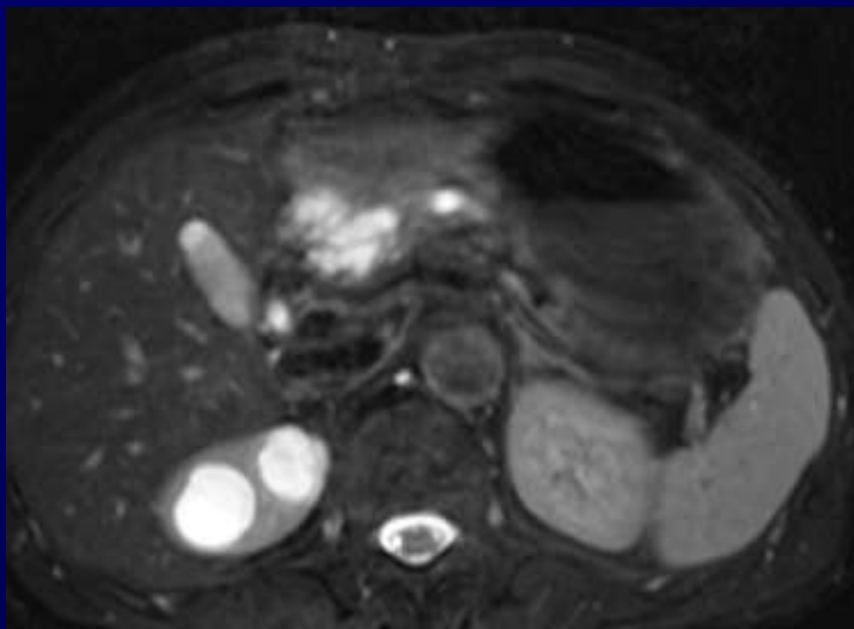
MRCP



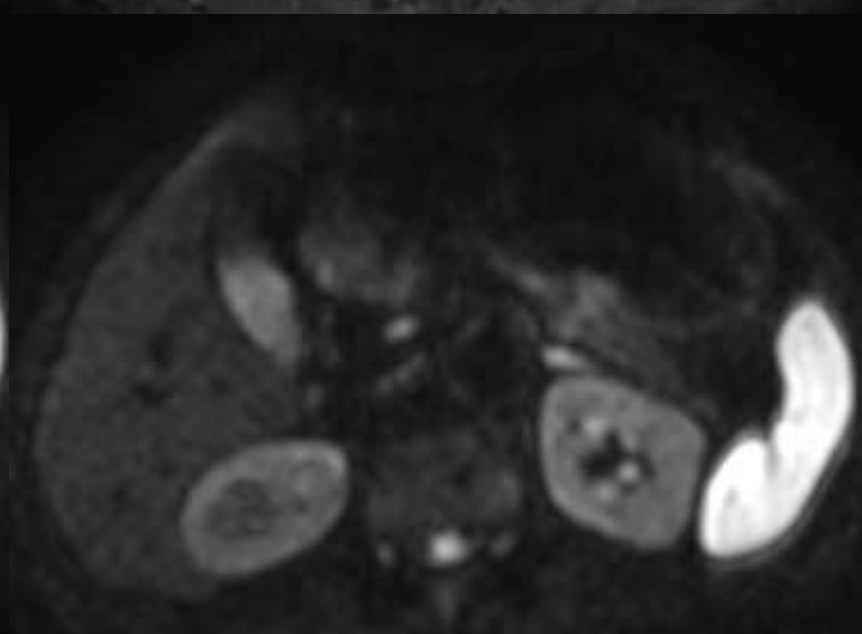
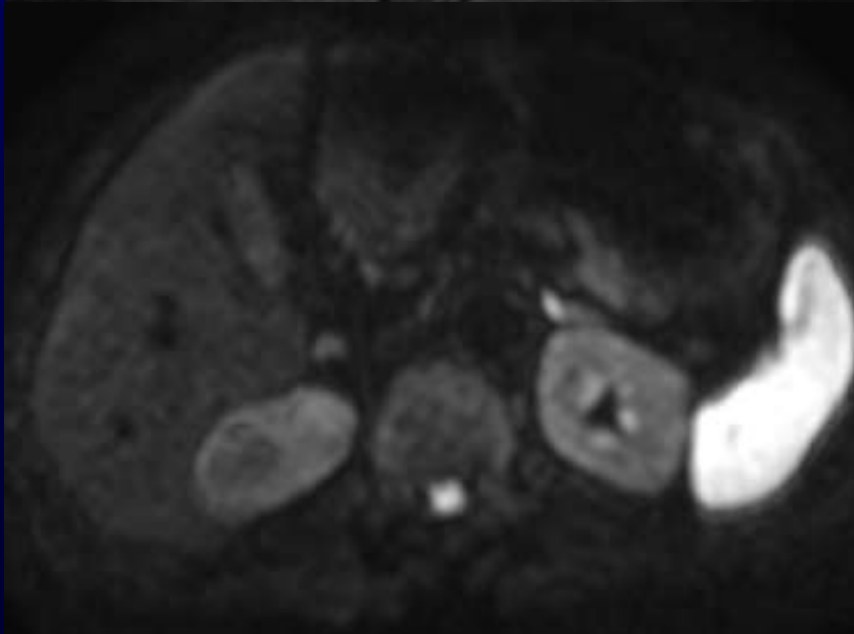
囊肿径：30mm，主胰管径：6mm

MRI

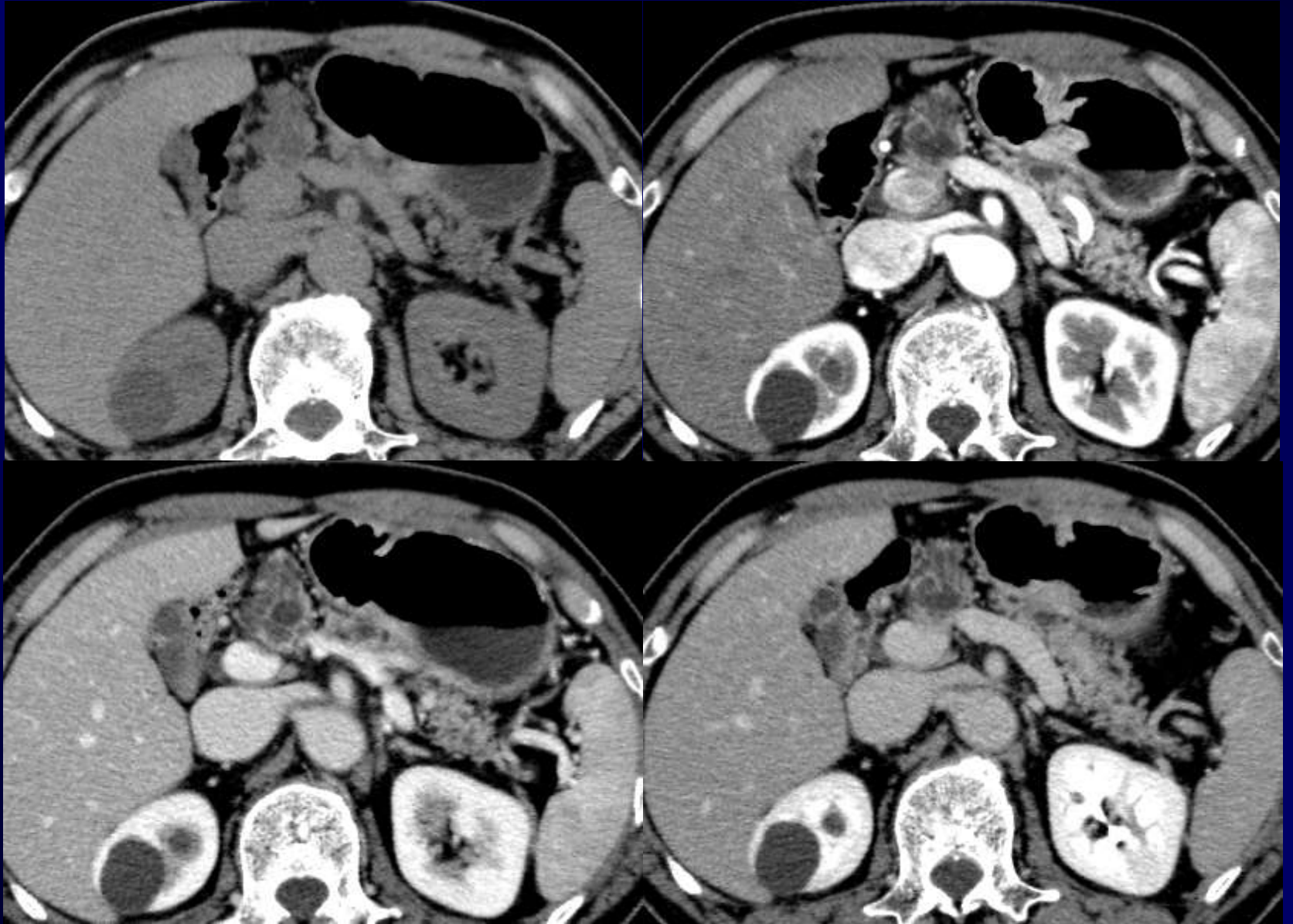
T2WI



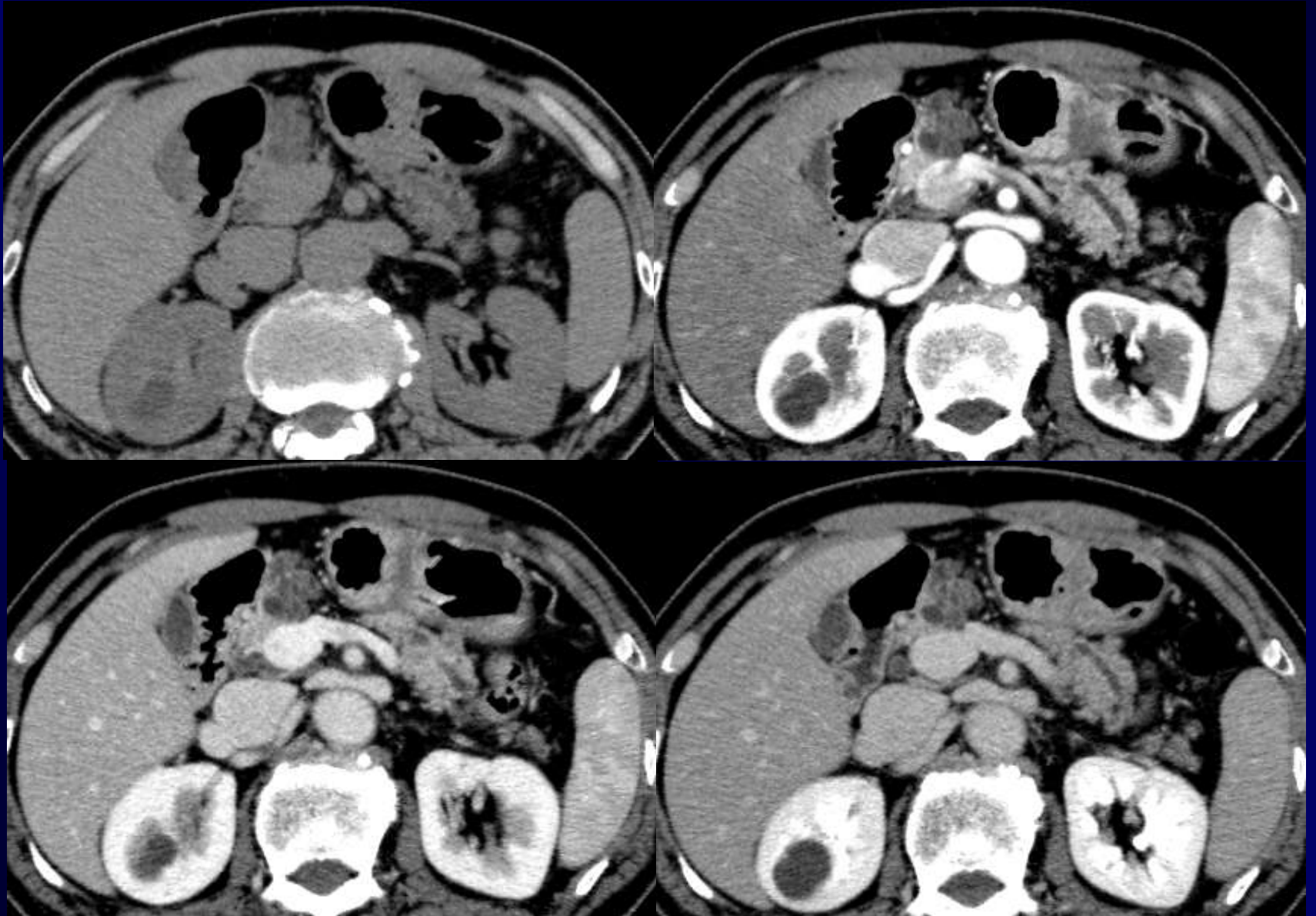
DWI



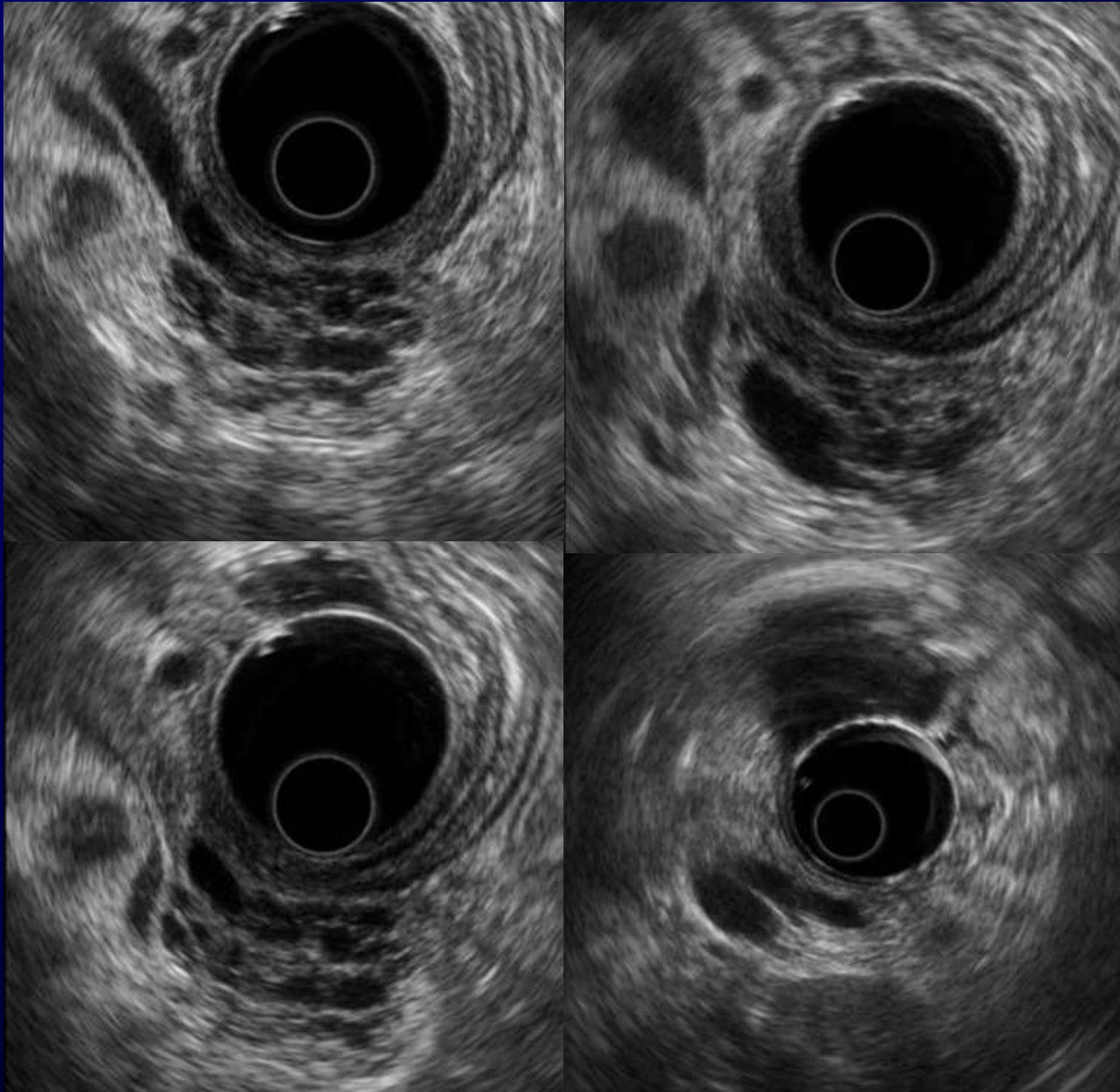
CT (1)



CT (2)



EUS





Q9 ERCPを行うか？

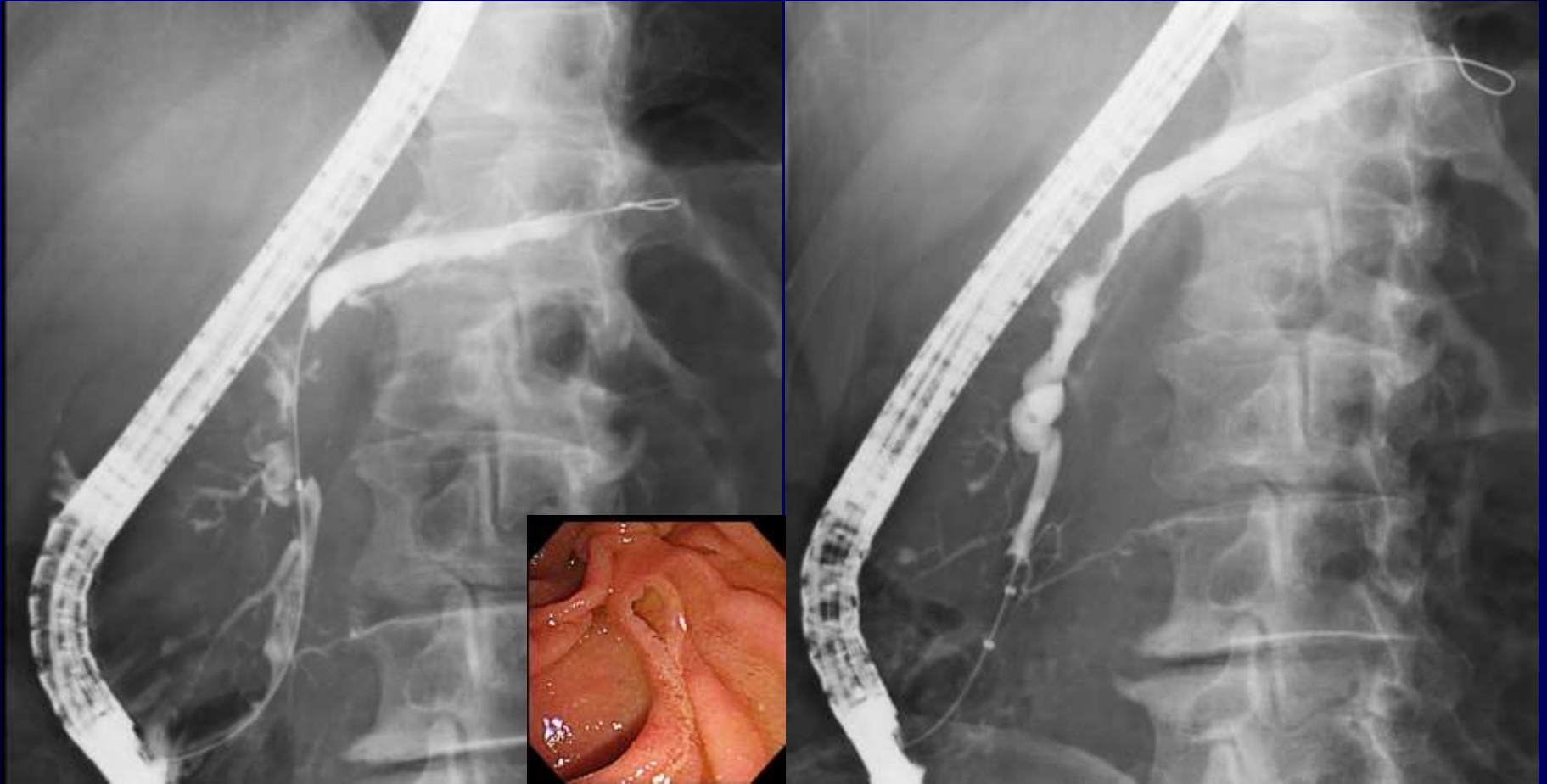
1. 行う



2. 行わない



ERCP



膵液吸引細胞診 : class I

Q10 治療方針は？

1. 手術



2. 経過観察



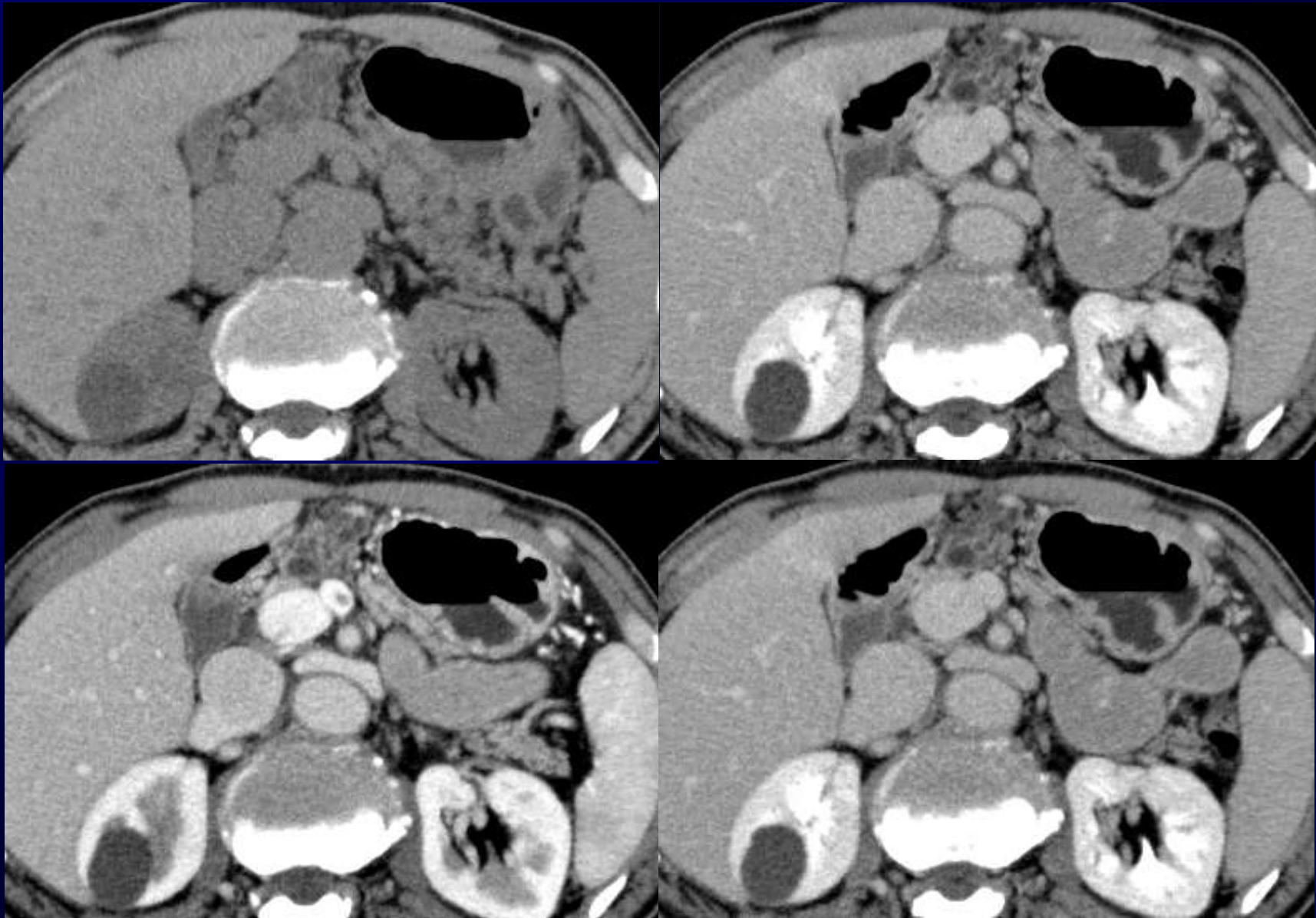
分枝型IPMN前向き追跡研究に登録

6ヵ月後 採血, CT

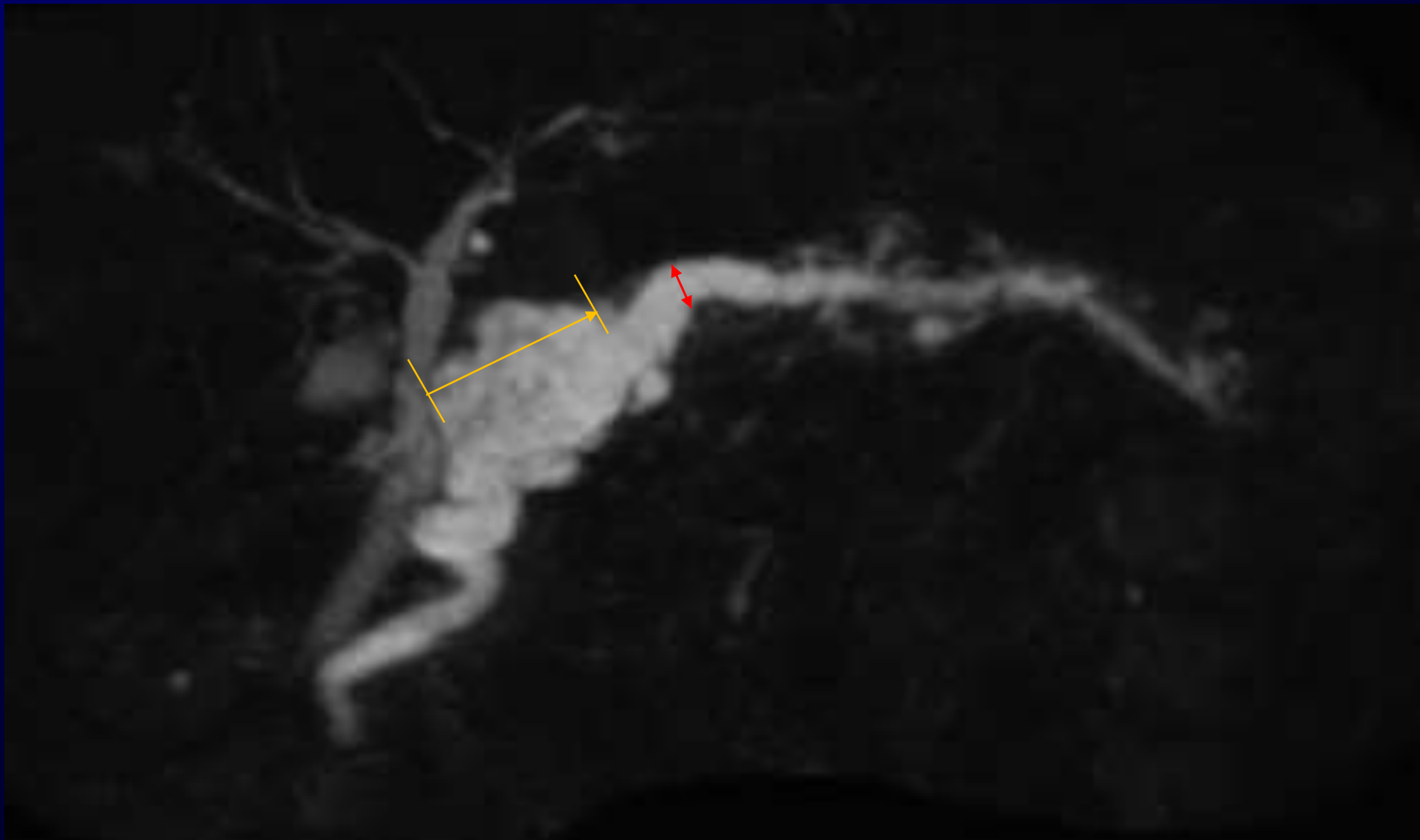
1年後 採血, MRCP, EUS

上記を繰り返し, 5年間追跡

CT (6力月後)

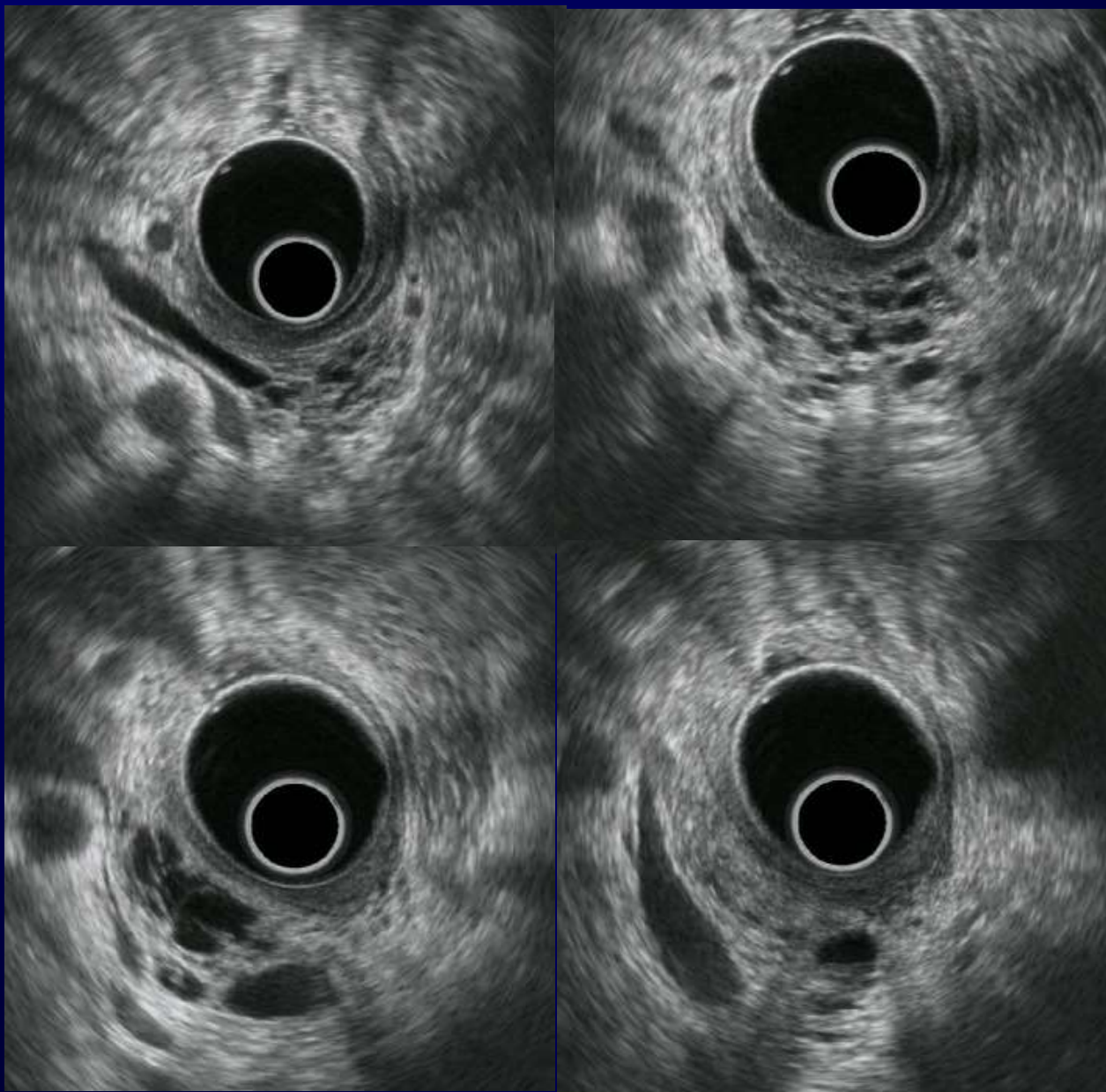


MRCP (1年後)



囊胞径: 33mm, 主胰管径: 7mm

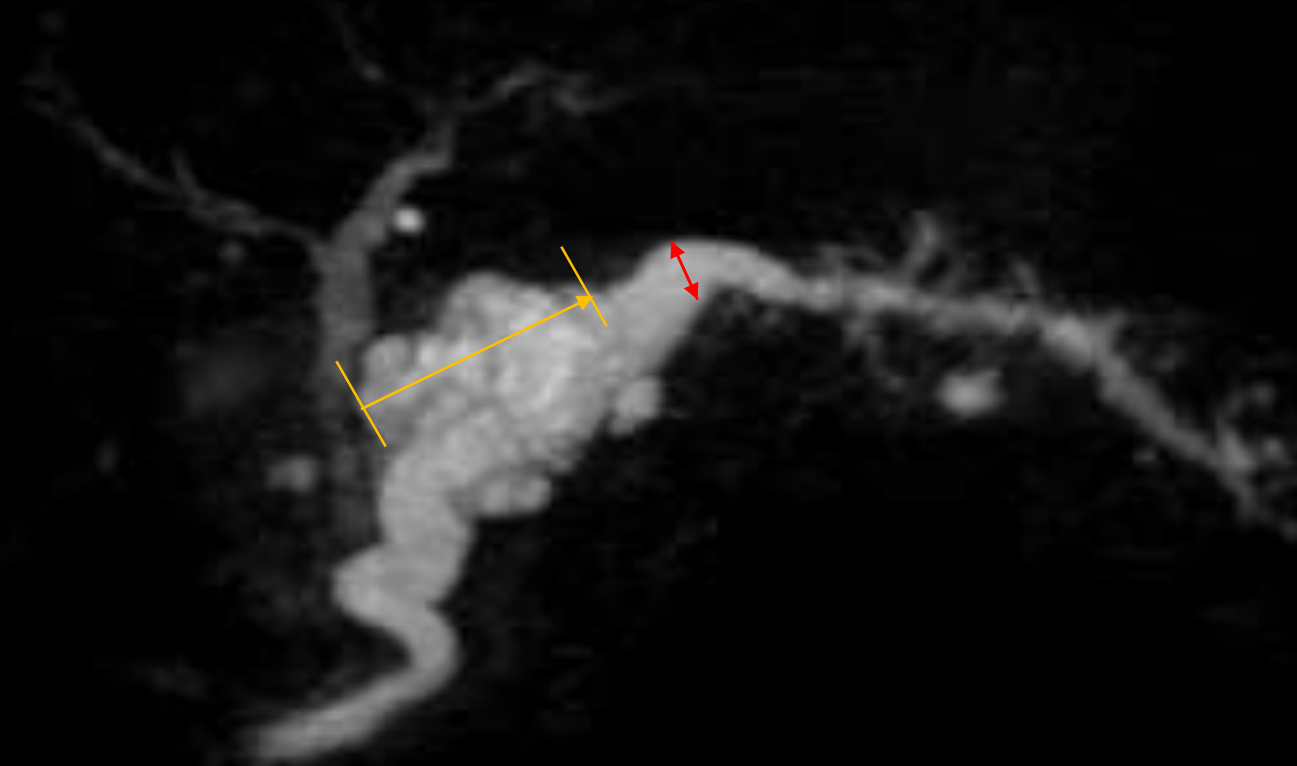
EUS (1年後)



CT (1年6力月後)

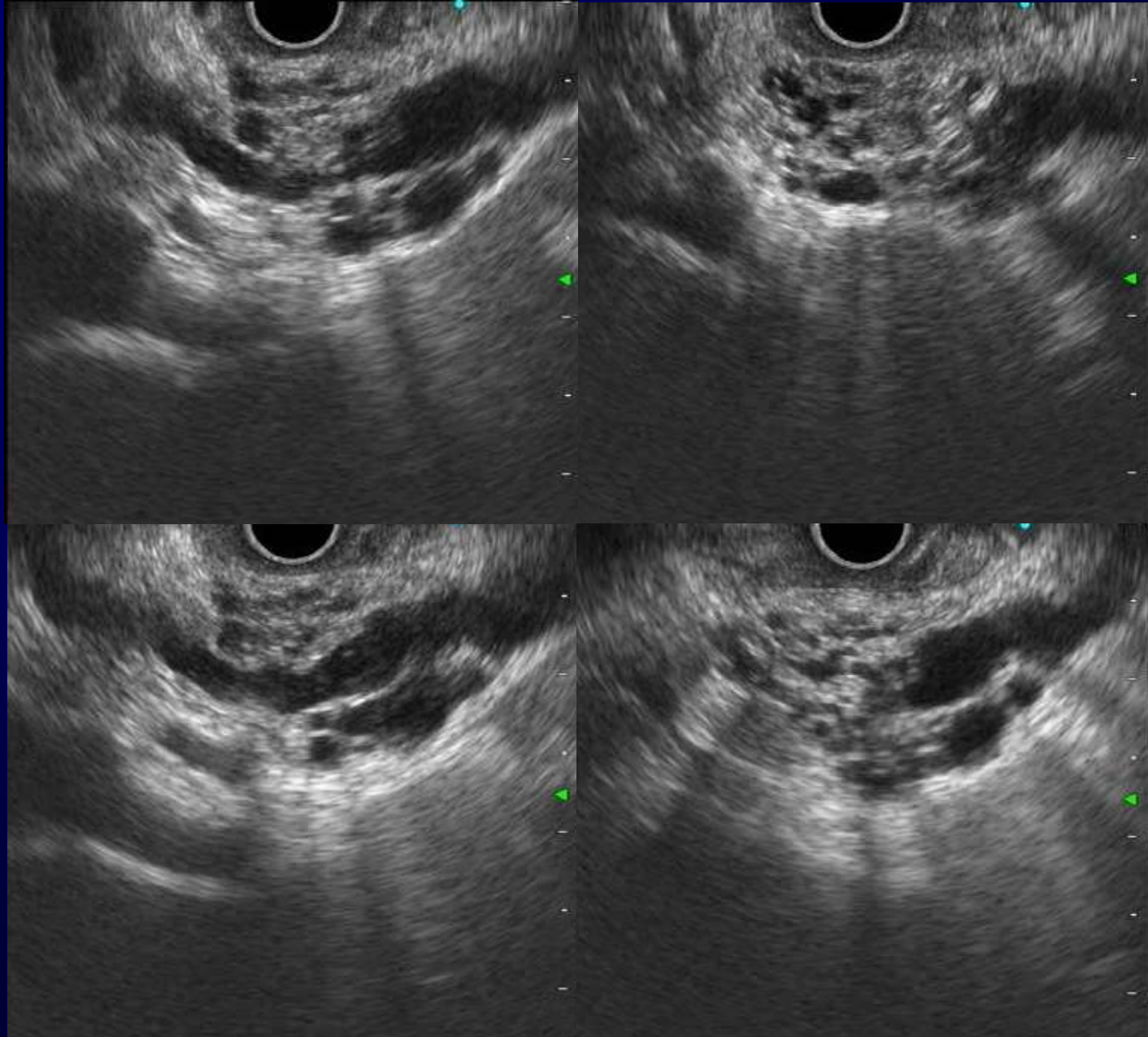


MRCP (2年後)

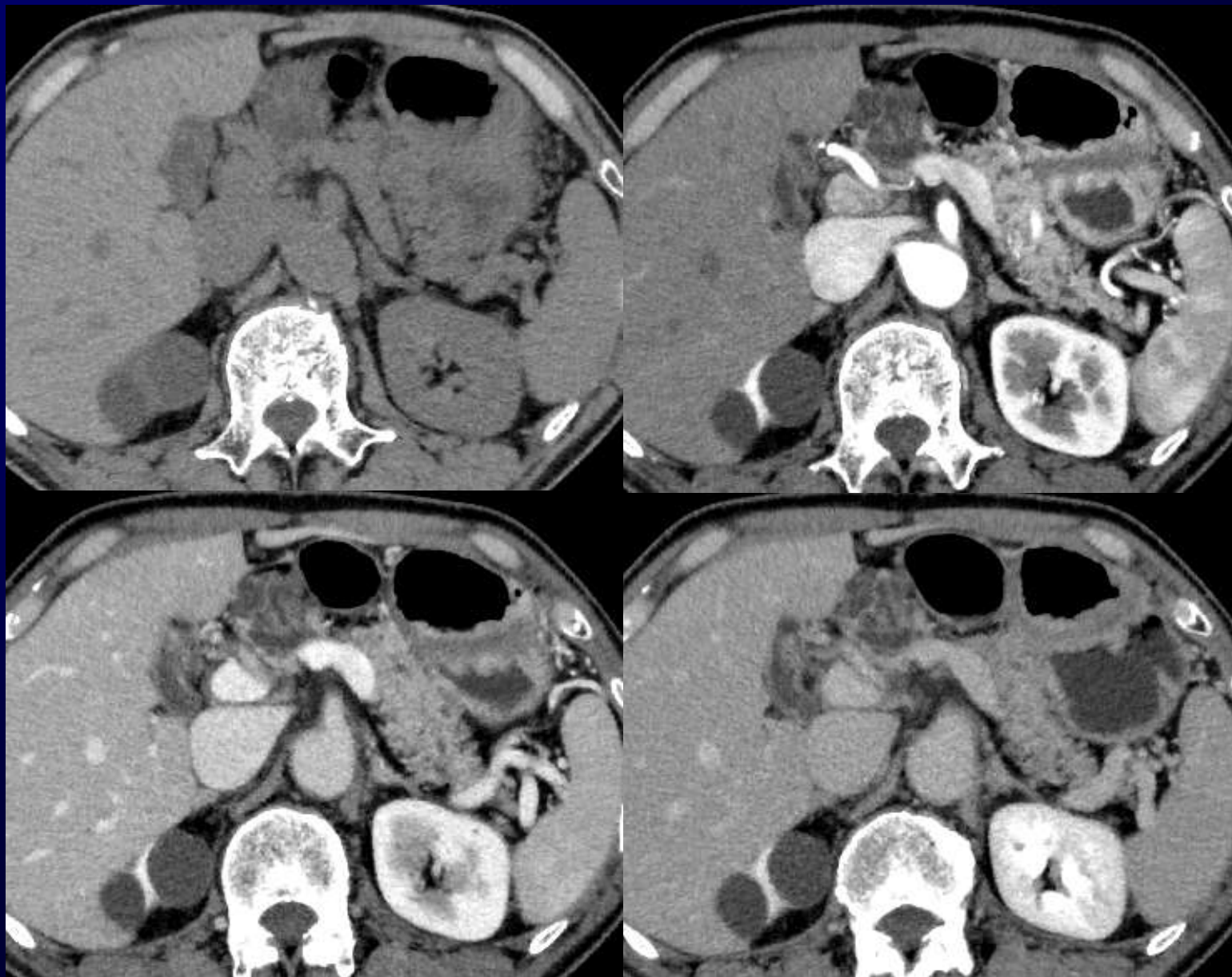


囊胞径: 36mm, 主胰管径: 8mm

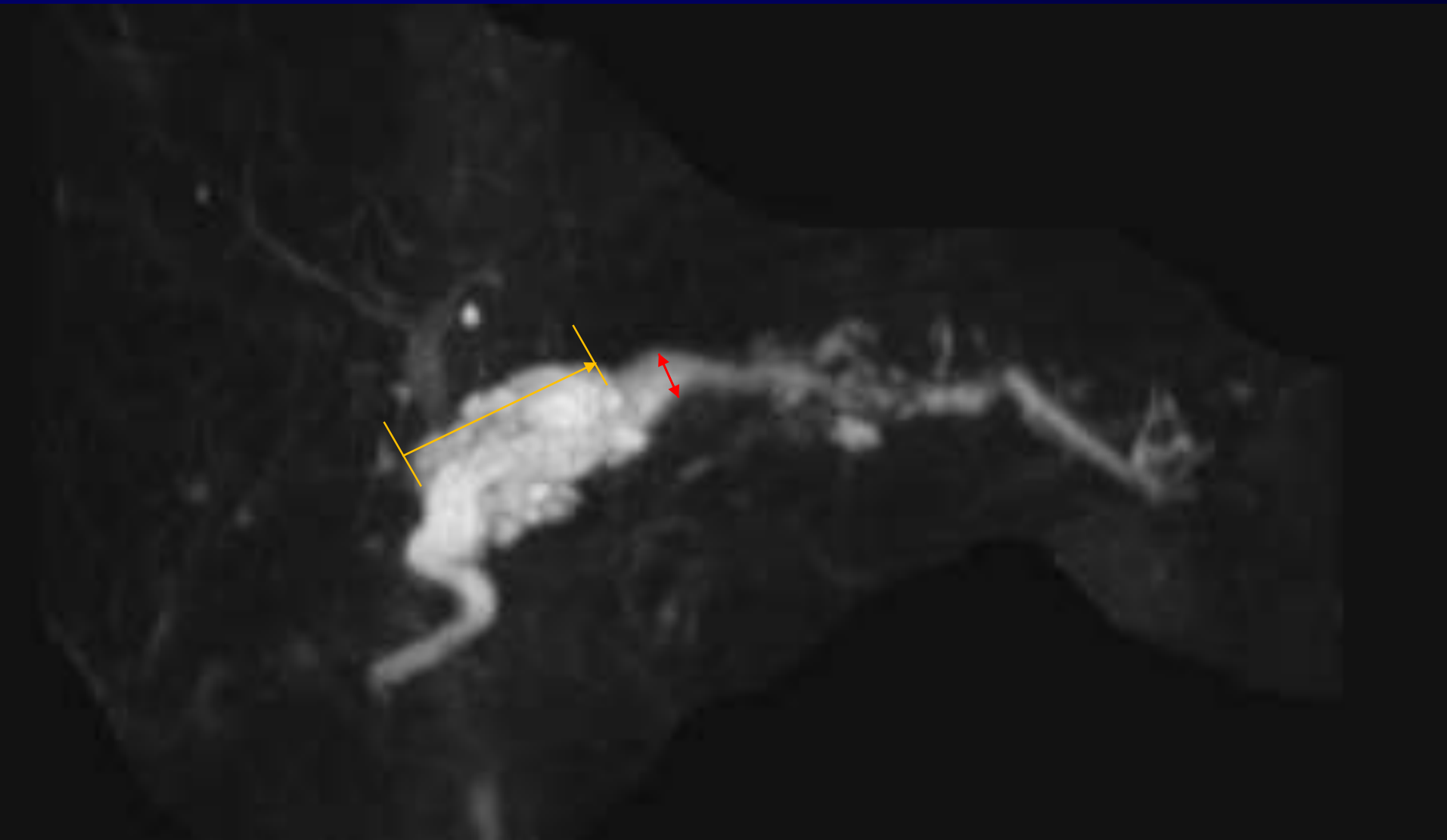
EUS (2年後)



CT (2年6力月後)

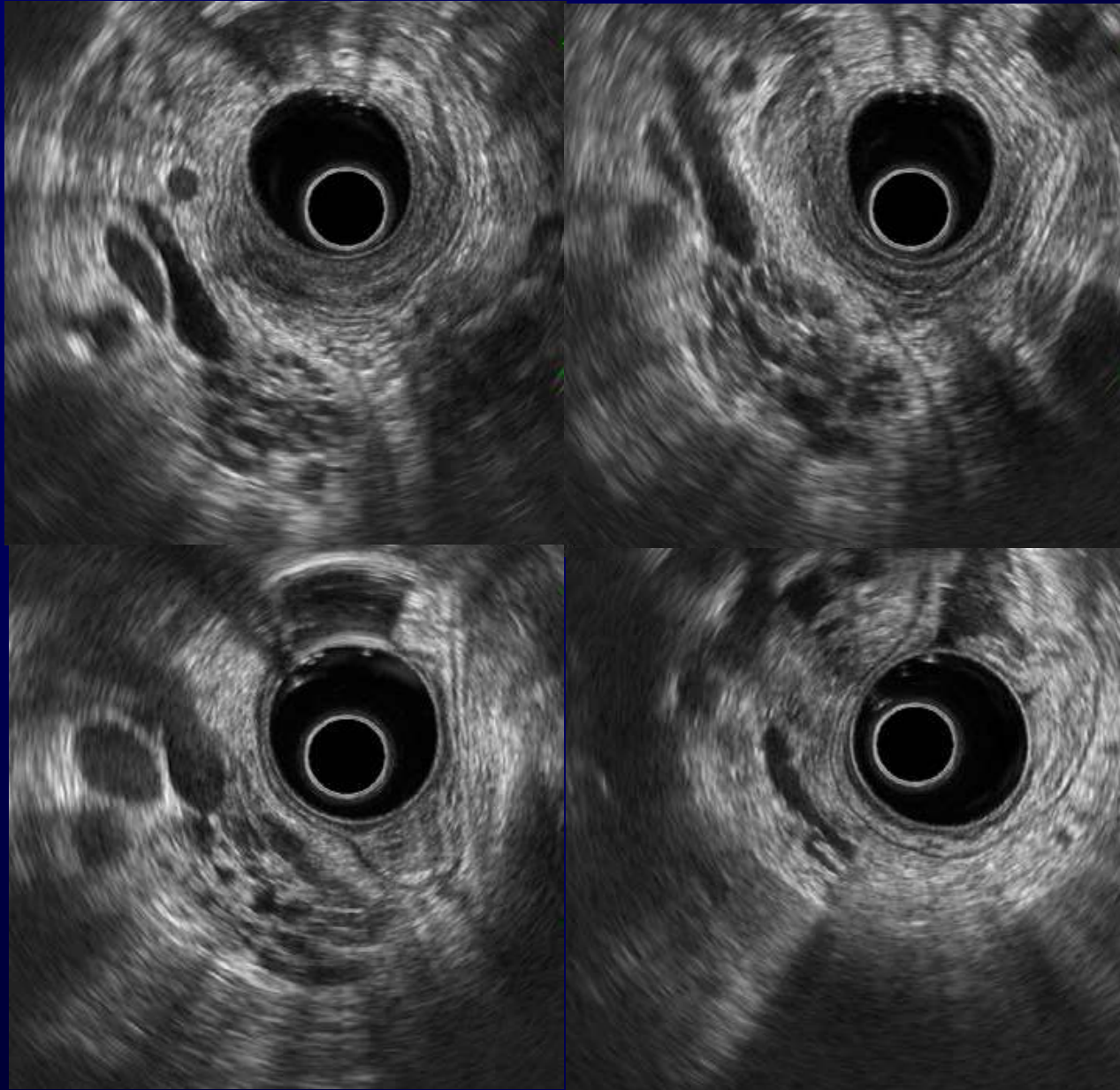


MRCP (3年後)

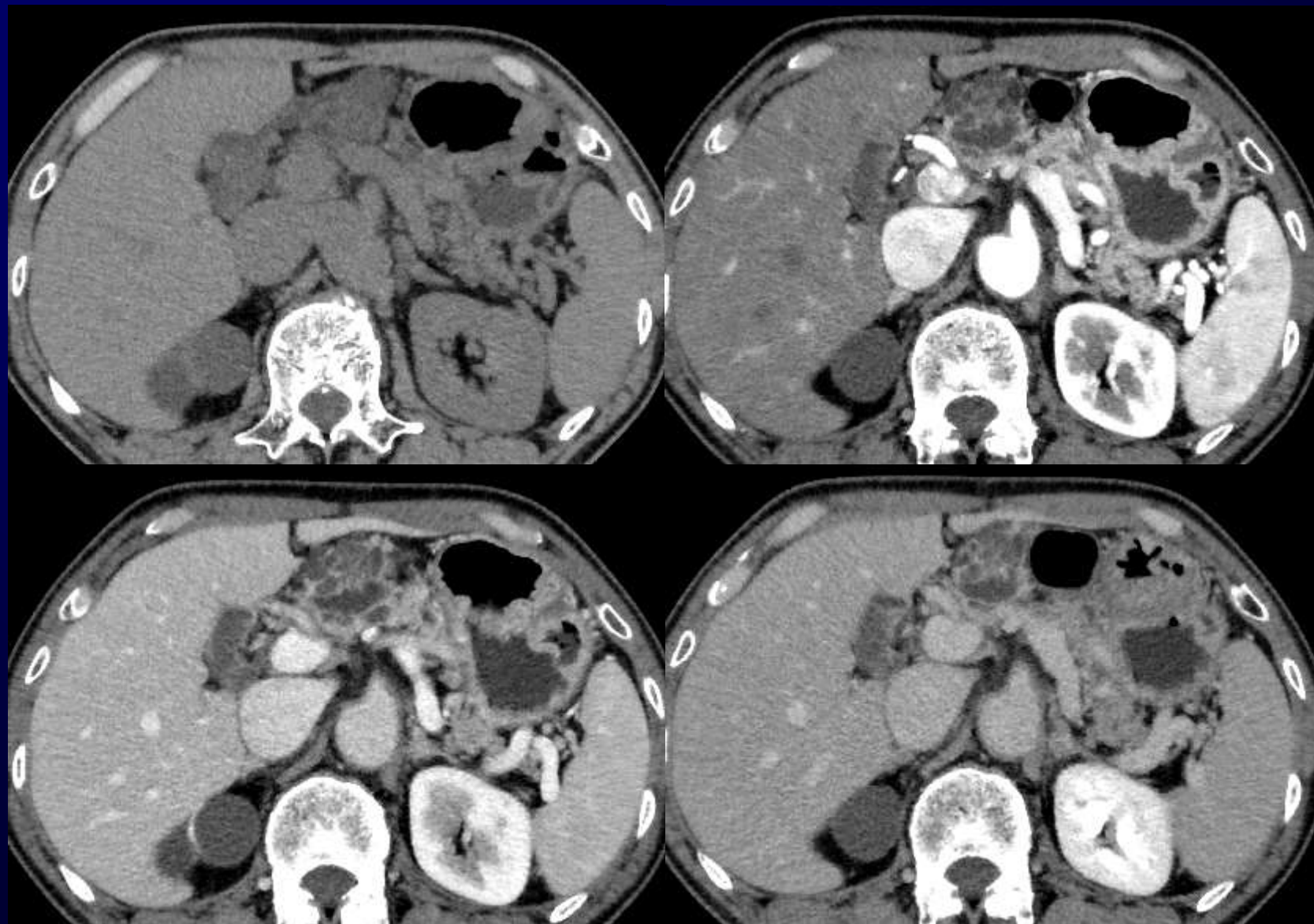


囊胞径 : 39mm, 主胰管径 : 8mm

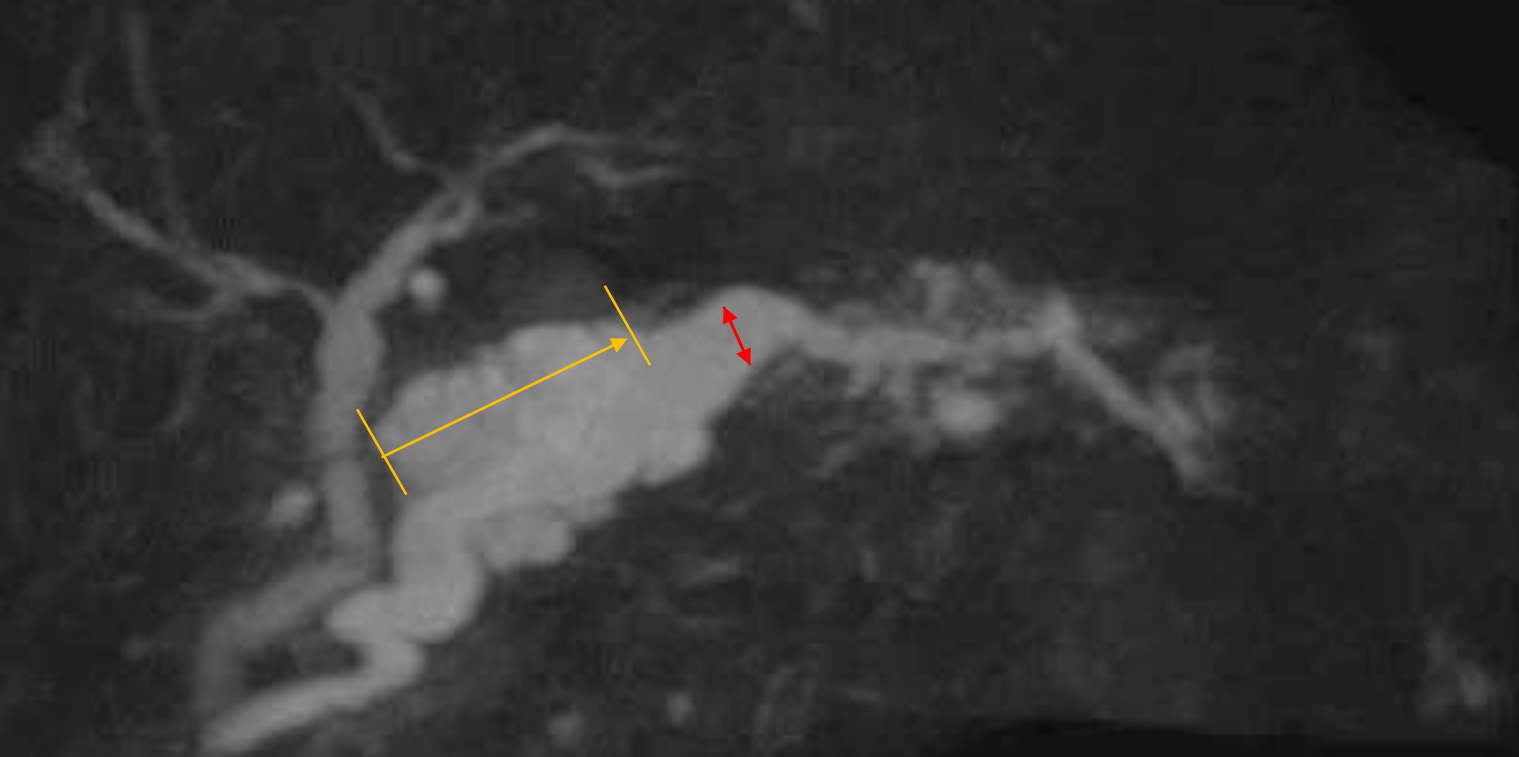
EUS (3年後)



CT (3年6力月後)

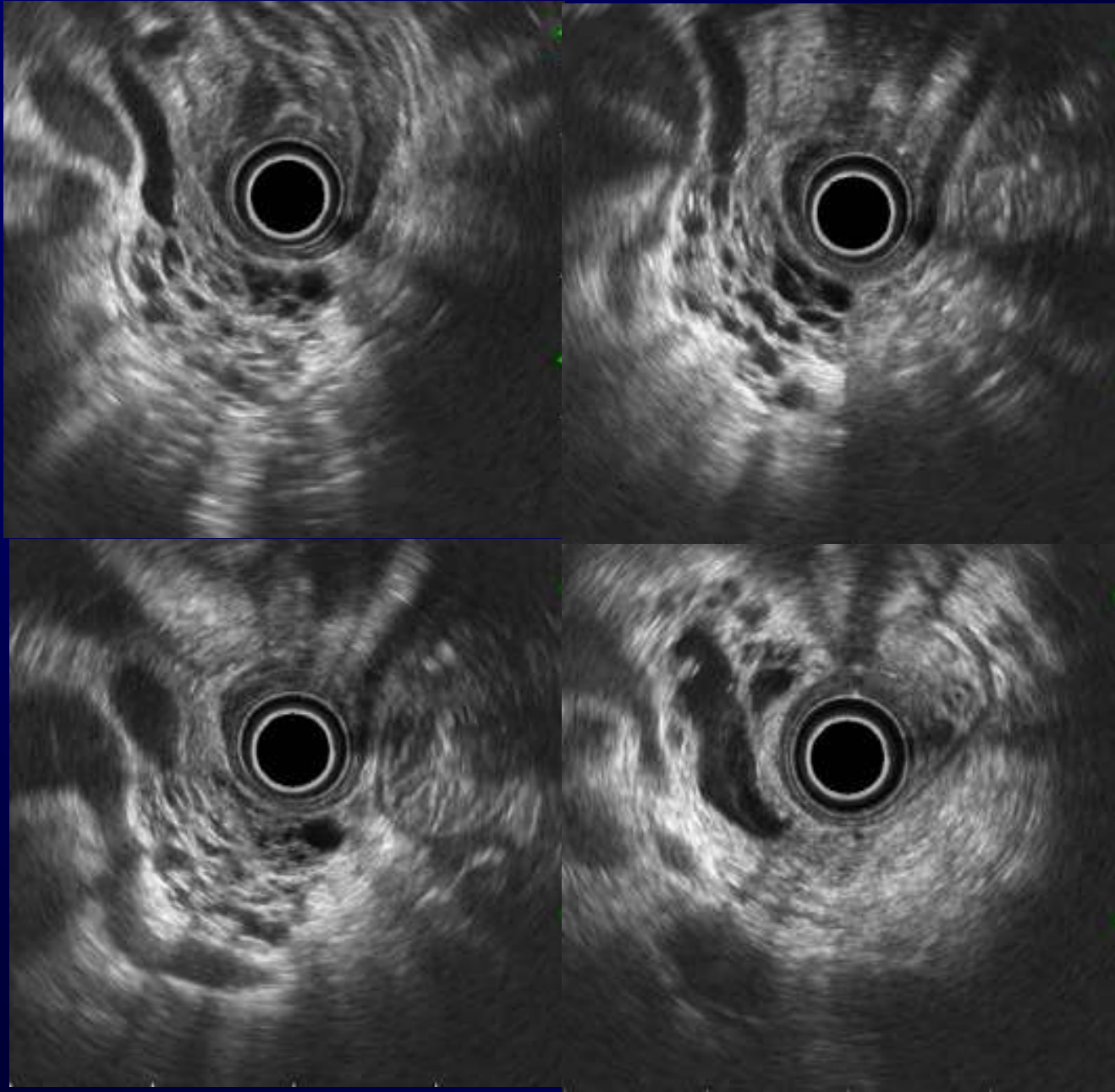


MRCP (4年後)

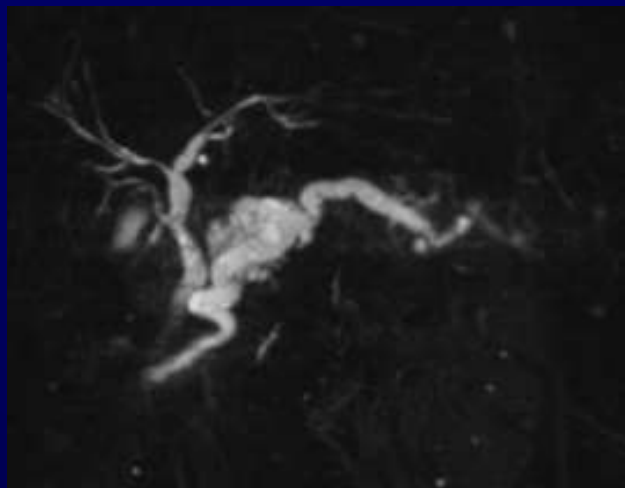


囊胞径: 40mm, 主胰管径: 9mm

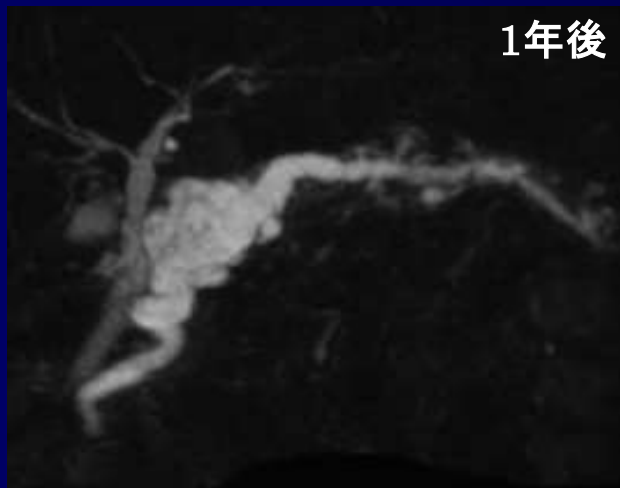
EUS (4年後)



MRCP所見の年次変化

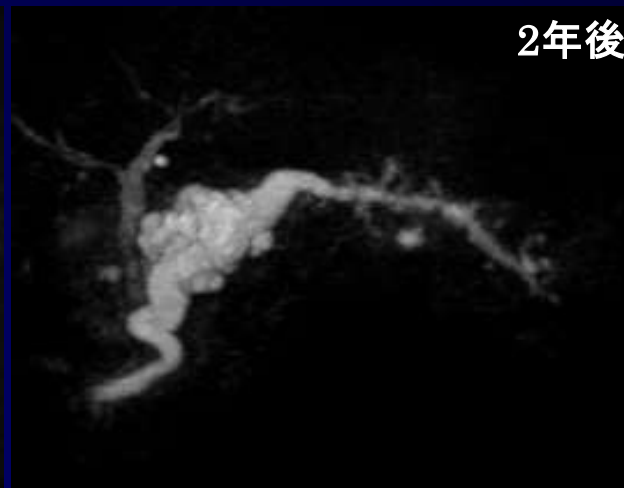


嚢胞径: 30mm, 主膵管径: 6mm



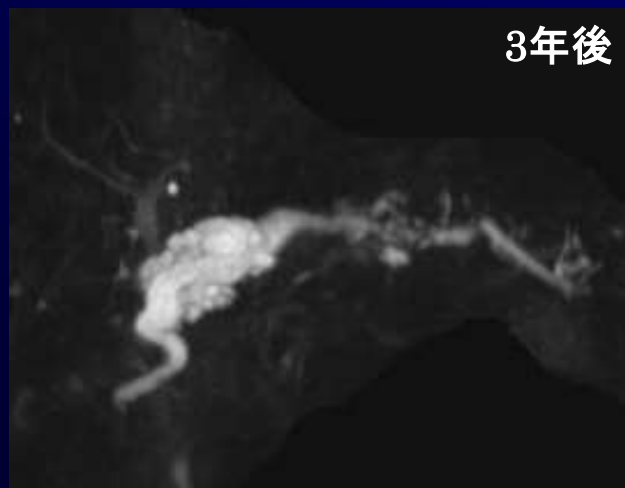
1年後

嚢胞径: 33mm, 主膵管径: 7mm



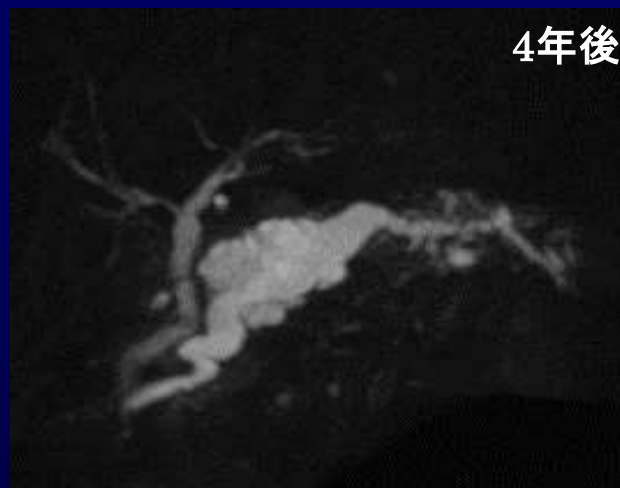
2年後

嚢胞径: 36mm, 主膵管径: 8mm



3年後

嚢胞径: 39mm, 主膵管径: 8mm



4年後

嚢胞径: 40mm, 主膵管径: 9mm