Pancreatic cysts

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Pancreatic cysts

Pathology

- Neoplastic
- Non-neoplastic
- True “simple” cysts rare/non-existent

Pancreatic pseudocysts

- Sequelae of pancreatitis
- Usually leave alone unless symptomatic (pain, infection, gastric outlet obstruction) or very large
- EUS transgastric drainage +/- AXIOS stenting

Pancreatic cysts

Incidence

- Mostly asymptomatic/incidental
- CT about 2%
- MRI about 20%
- Huge drain on resources
  - Radiology follow-up
  - Diagnostic dilemma
  - Patient anxiety
  - Surgical/Gastro

Cyst management

Options

- Ignore
  - Tiny lesions in older/comorbid patient
  - “White dot” lesions <5mm incidental on scans - what to do?
    - WDBH current practice - one follow-up CT or MRI at 2 years then stop if no growth
    - In older patients age >80 some radiologists do not report them
- Surveillance
  - CT or MRI, variable protocols and durations
- EUS +/- FNA
  - For larger or worrying lesions, or growing cysts
- Resect
  - For larger or worrying lesions, or high risk diagnoses

Cyst surveillance

WDHB protocol

ORIGINAL ARTICLE CLINICAL PRACTICE MANAGEMENT

CrossMark

EC: Editor's Choice

SA-CME

Management of Incidental Pancreatic Cysts: A White Paper of the ACR Incidental Findings Committee

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Abstract

The ACR Incidental Findings Committee (IFC) presents recommendations for managing pancreatic cysts that are incidentally detected on CT or MRI. These recommendations represent an update from the pancreatic component of the JACR 2010 white paper on managing incidental findings in the adrenal glands, kidneys, liver, and pancreas. The Pancreas Subcommittee—which included abdominal radiologists, a gastroenterologist, and a pancreatic surgeon—developed this algorithm. The recommendations draw from published evidence and expert opinion, and were finalized by informal iterative consensus. Algorithm branches successively categorize pancreatic cysts based on patient characteristics and imaging features. They terminate with an ascertainment of benignity and/or indolence (sufficient to discontinue follow-up), or a management recommendation. The algorithm addresses most, but not all, pathologies and clinical scenarios. Our goal is to improve quality of care by providing guidance on how to manage incidentally detected pancreatic cysts.

Key Words: Pancreas, cyst, intraductal papillary mucinous neoplasm (IPMN), incidental finding

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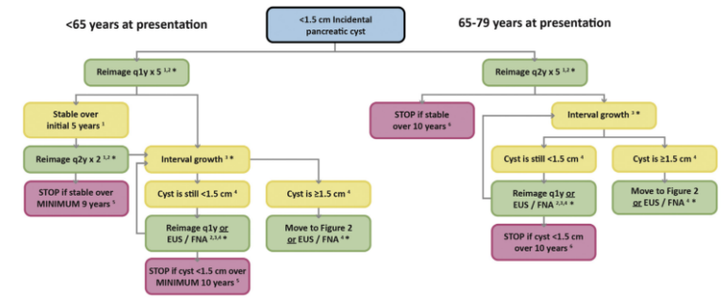
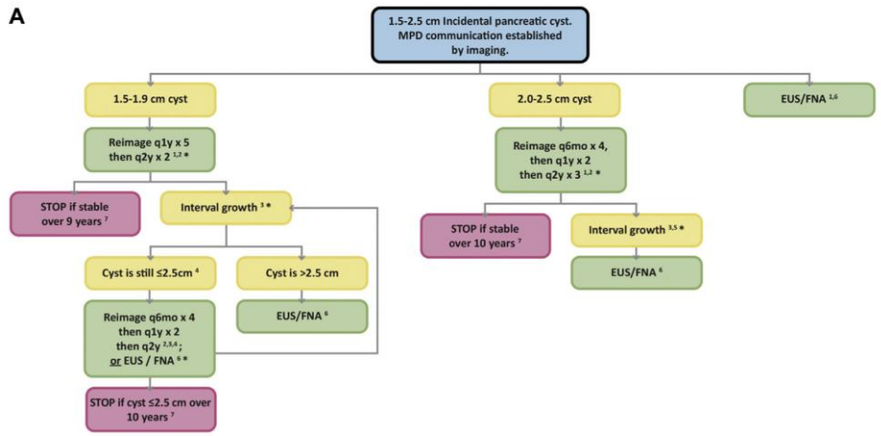
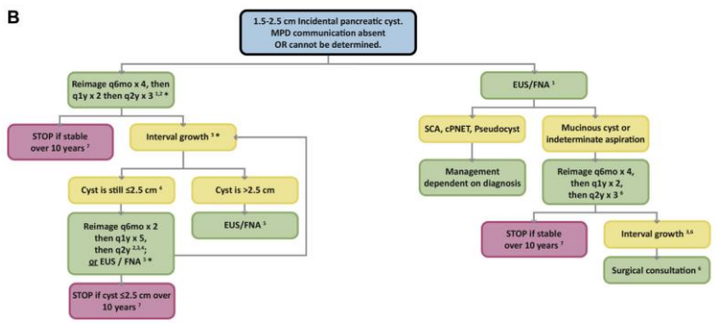
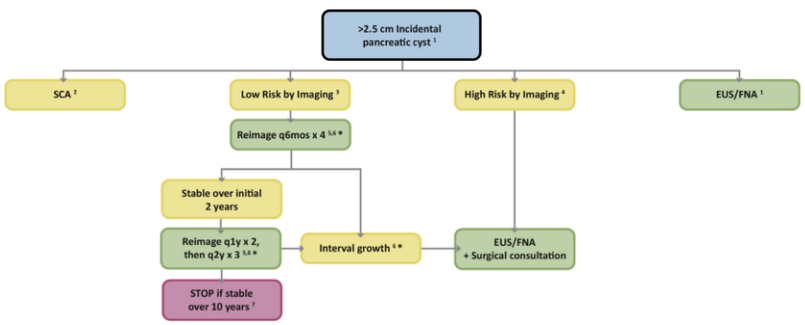








Consider age, size, growth, worrying features

MRI best modality, EUS sometimes

Interval between 6 months to 2 years

Follow up to 10 years

Types of cysts

- Intraductal papillary mucinous neoplasia (IPMN)
- Mucinous cystic neoplasm (MCN)
- Serous cystic neoplasm (SCN)
- Solid pseudopapillary

IPMN

- Intraductal papillary mucinous neoplasia
- Cystic papillary tumour within the pancreatic ductal system that secretes mucin
- Main duct / side branch / mixed type
- some malignant potential

IPMN

Types and malignancy risk

- Main duct
  - all 62%, invasive 44%
- Side branch
  - all 24%, invasive 17%
- Mixed type
  - all 58%, invasive 45%

IPMN

- High risk factors for malignancy (=“high risk stigmata”)
  - Jaundice
  - Enhancing solid component
  - Main panc duct ≥10mm
- Moderate risk factors for malignancy (=“worrisome features”)
  - Cyst ≥3cm
  - Thickened enhancing cyst wall
  - Main panc duct 5-9mm
  - Non-enhancing mural nodules
  - Abrupt change in panc duct calibre with distal atrophy
  - Lymphadenopathy

IPMN

Resection

- Whipple
- Distal pancreatectomy
- Total pancreatectomy
- Enucleation

IPMN

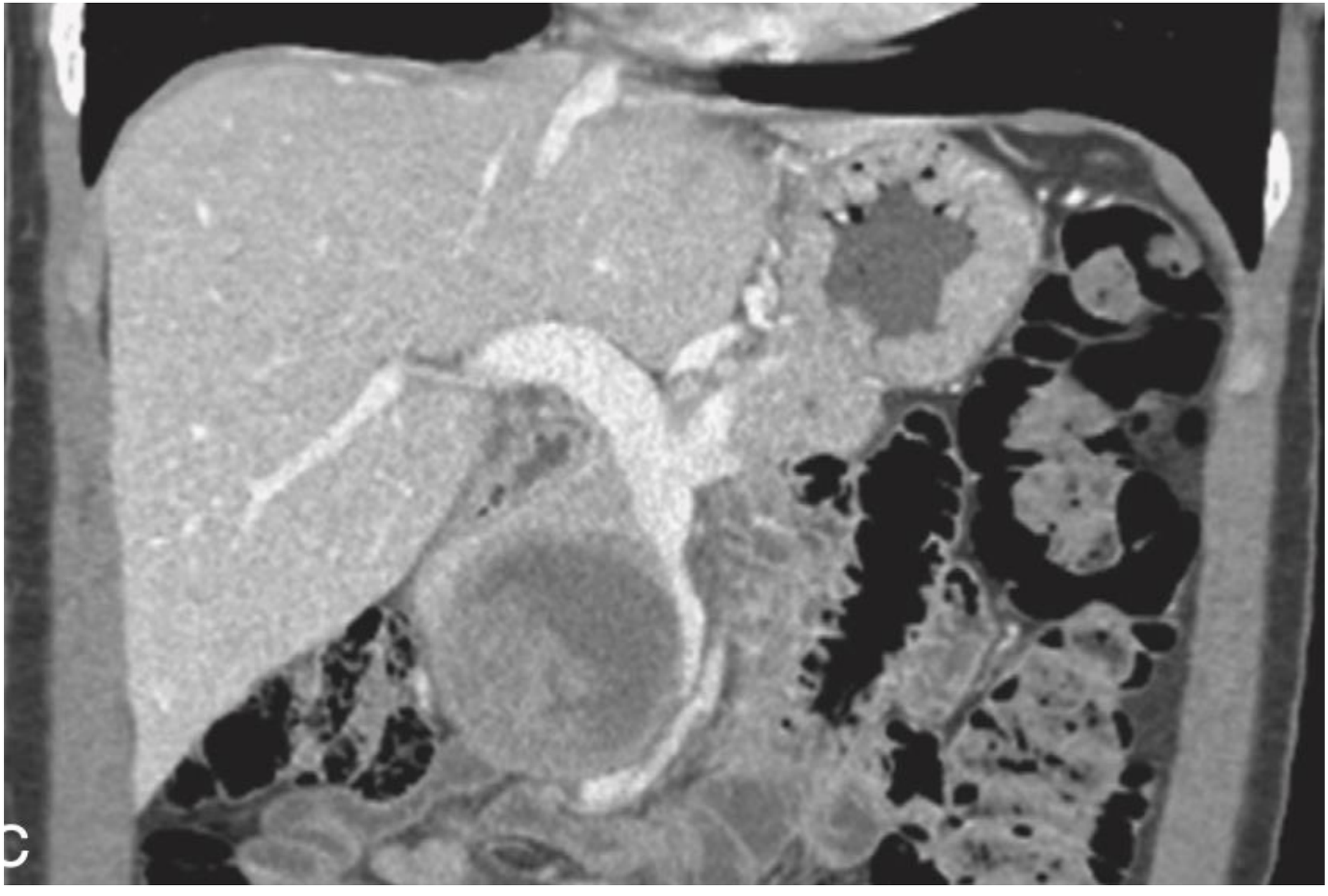
- Laparoscopic resection
- Robotic resection

Mucinous Cystic Neoplasm

- Usually women age 30-50
- Often in tail of panc
- Can cause pancreatitis
- Malignant potential around 15-30%
- Recommend resection in most cases

Solid Pseudopapillary Tumour

- Uncommon
- Typically young woman
- Predominantly solid with some cystic component, often thick walled with haemorrhage
- Malignant potential around 20%
- Usually recommend resection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Serous cystadenoma

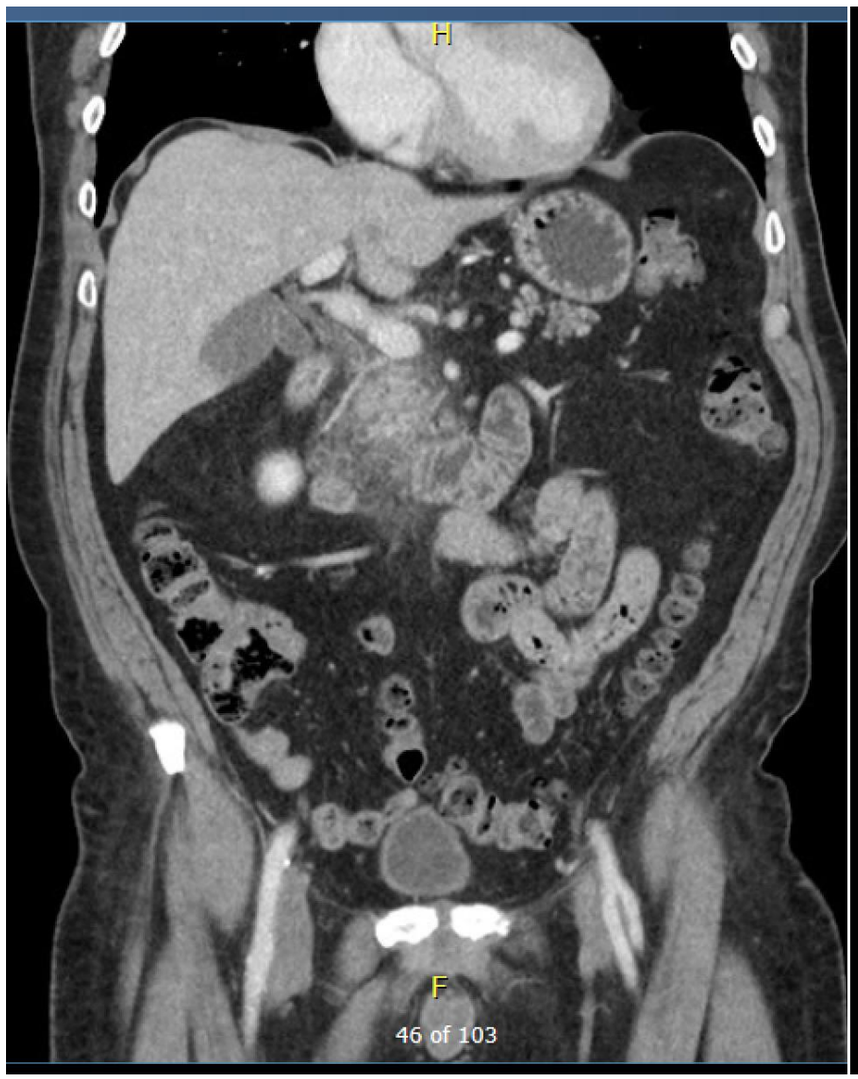
- Can be large, with numerous tiny cysts (“honeycomb appearance”), central scar
- No malignant potential
- Rarely resect unless large and symptomatic

Cystic neuroendocrine tumour

- Cystic degeneration of NET
- Manage as per usual NET (based on size, symptoms, and functional status)

Case 1

- 68 y.o man recurrent pancreatitis
- CT - dilated PD, no mass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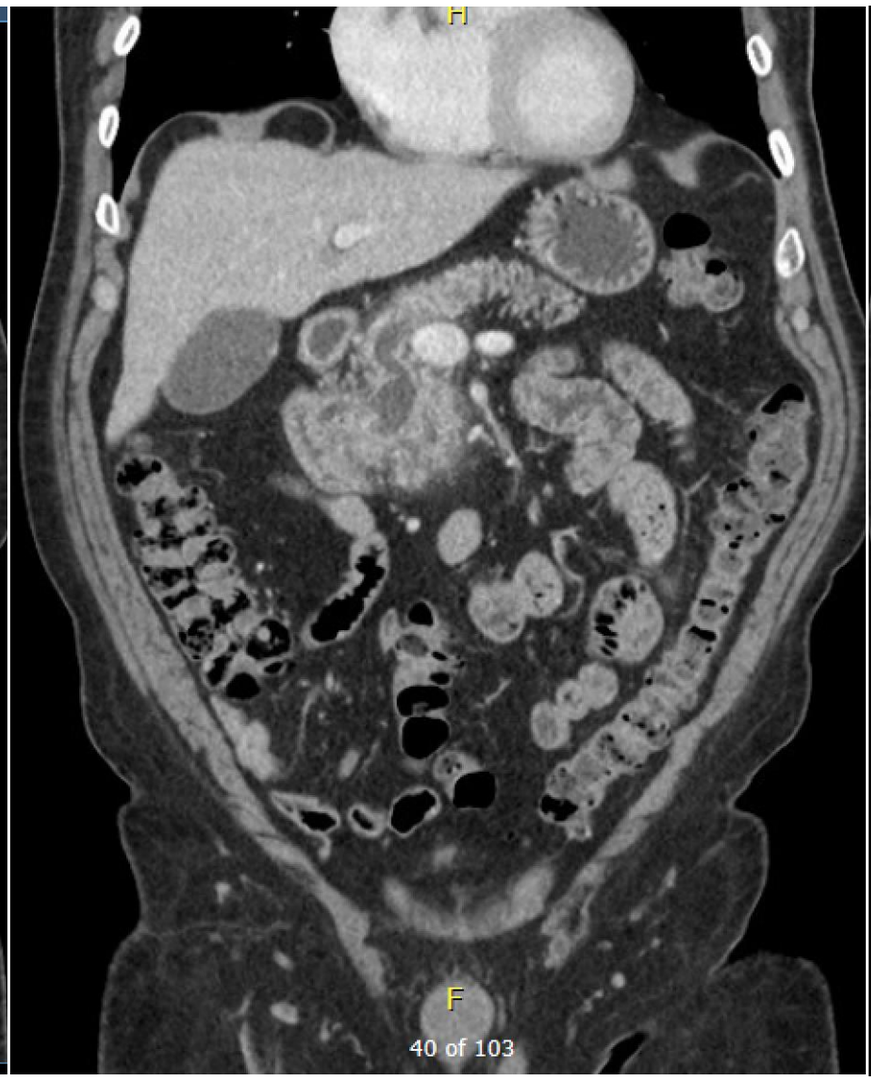
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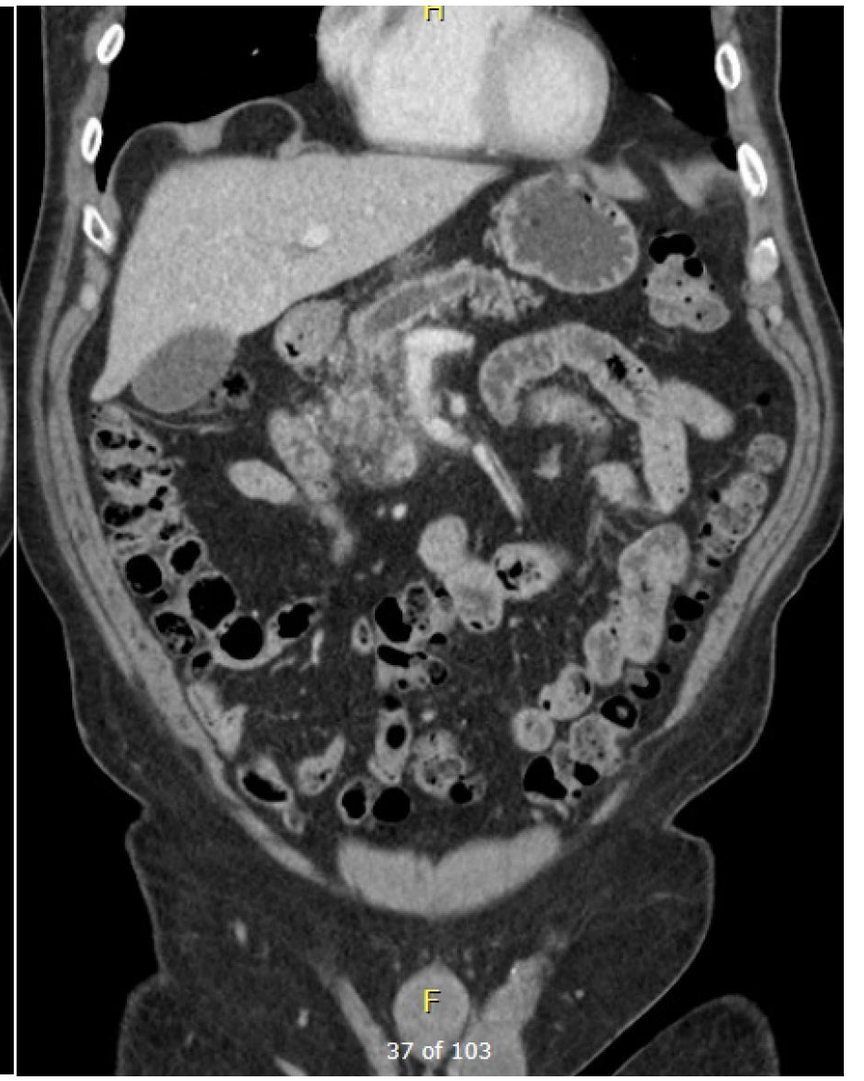
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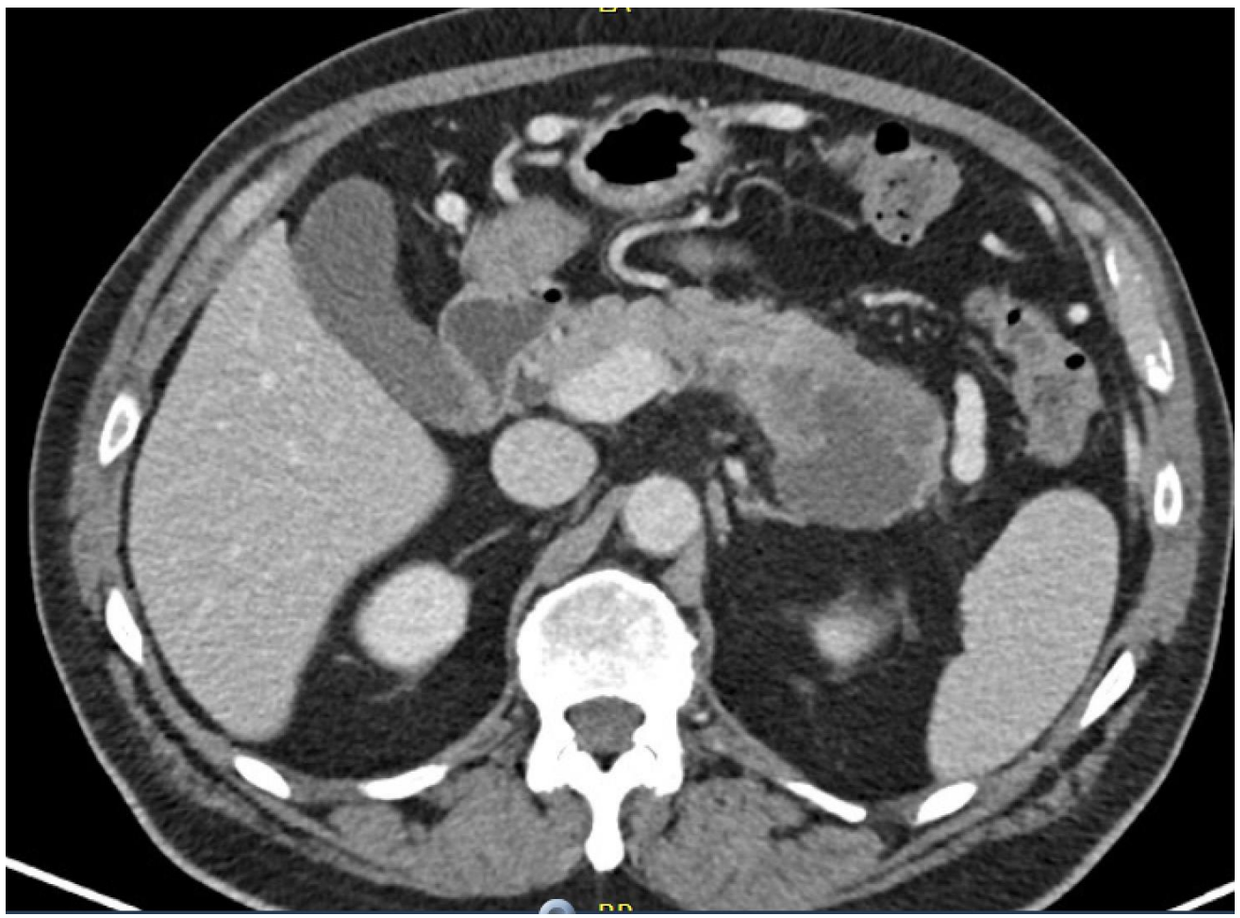
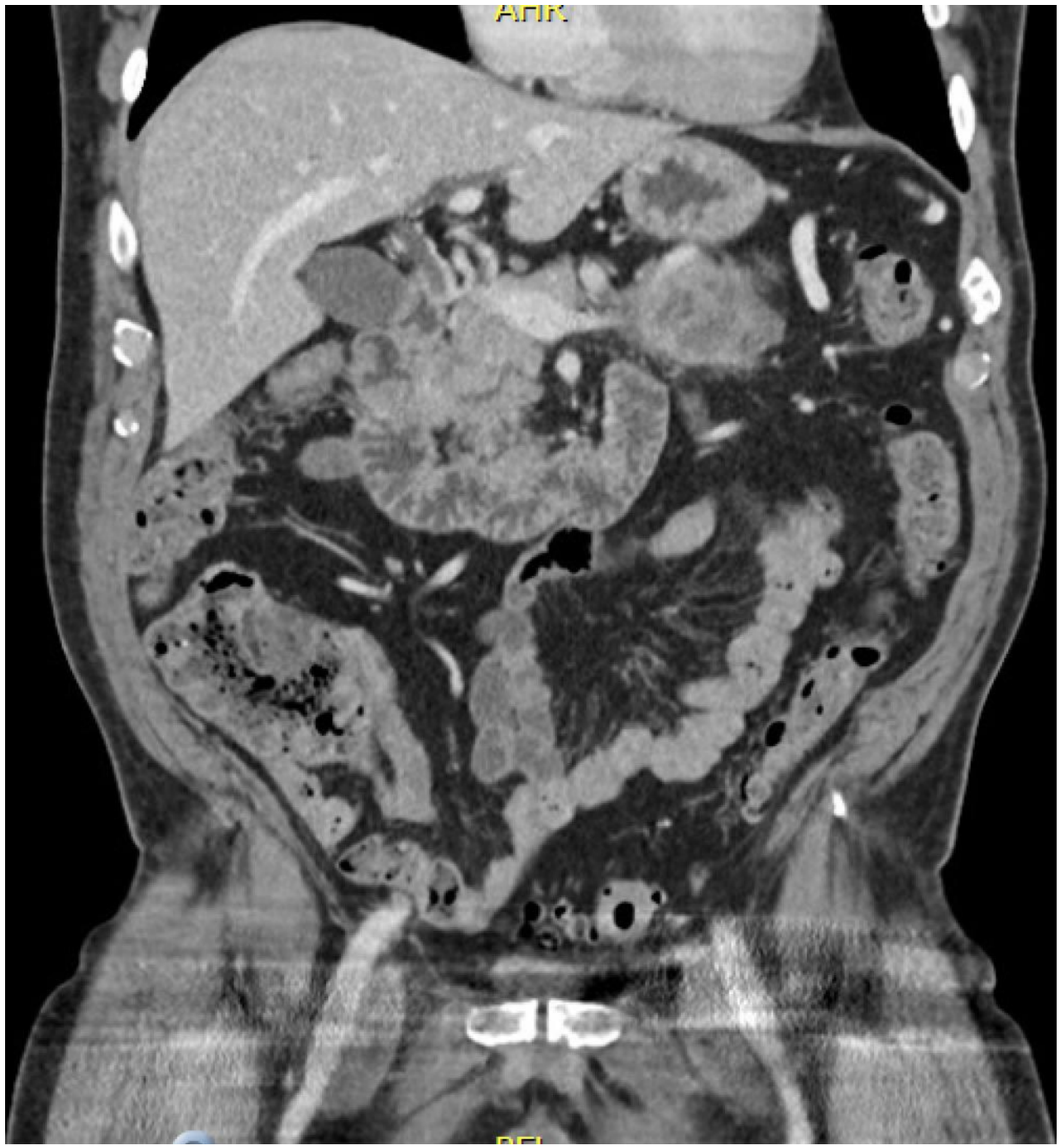
Case 1

- Diagnosis - main duct IPMN
- Total pancreatectomy
- Path - IPMN with a 7mm focus of adenocarcinoma, colloid type, invading duodenum and peripancreatic fat. T3N0
- Completed 6 months of adjuvant gemcitabine-capecitabine
- Currently alive with no evidence of disease at 48 months

Case 2

- 73 y.o. man with epigastric pain
- CT showed large solid-cystic tail of panc mass
- Locally invasive with invasion of splenic vein origin and splenic artery near origin

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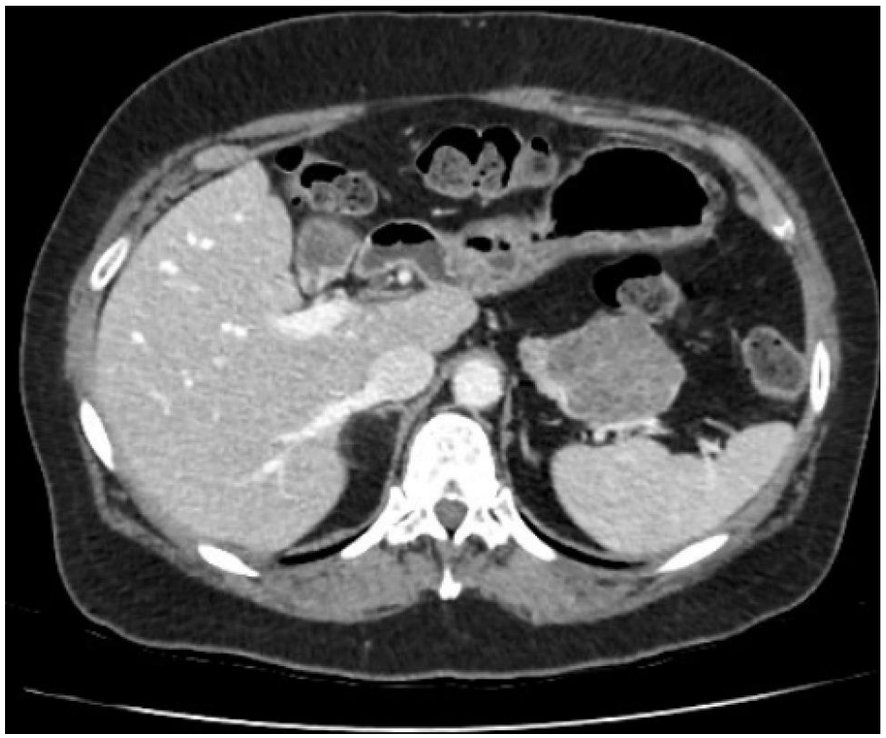
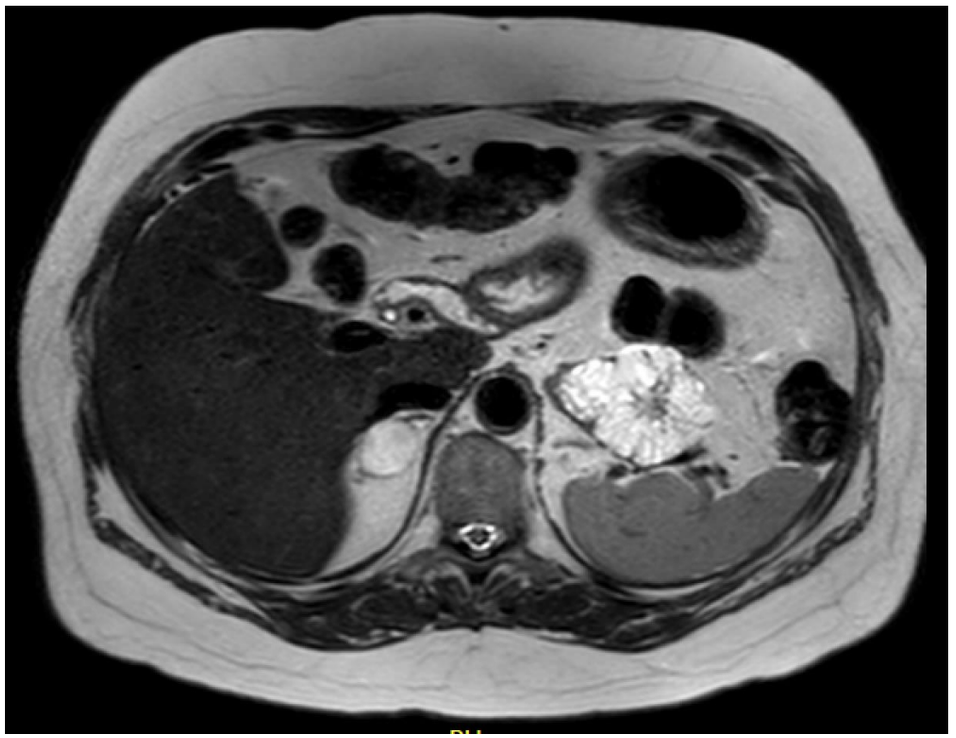
Case 2

- Extended distal pancreatectomy (RAMPS)
- Histo: 55mm mod diff adenocarcinoma arising from an IPMN, T3N0.
- Adjuvant FOLFIRINOX

Case 3

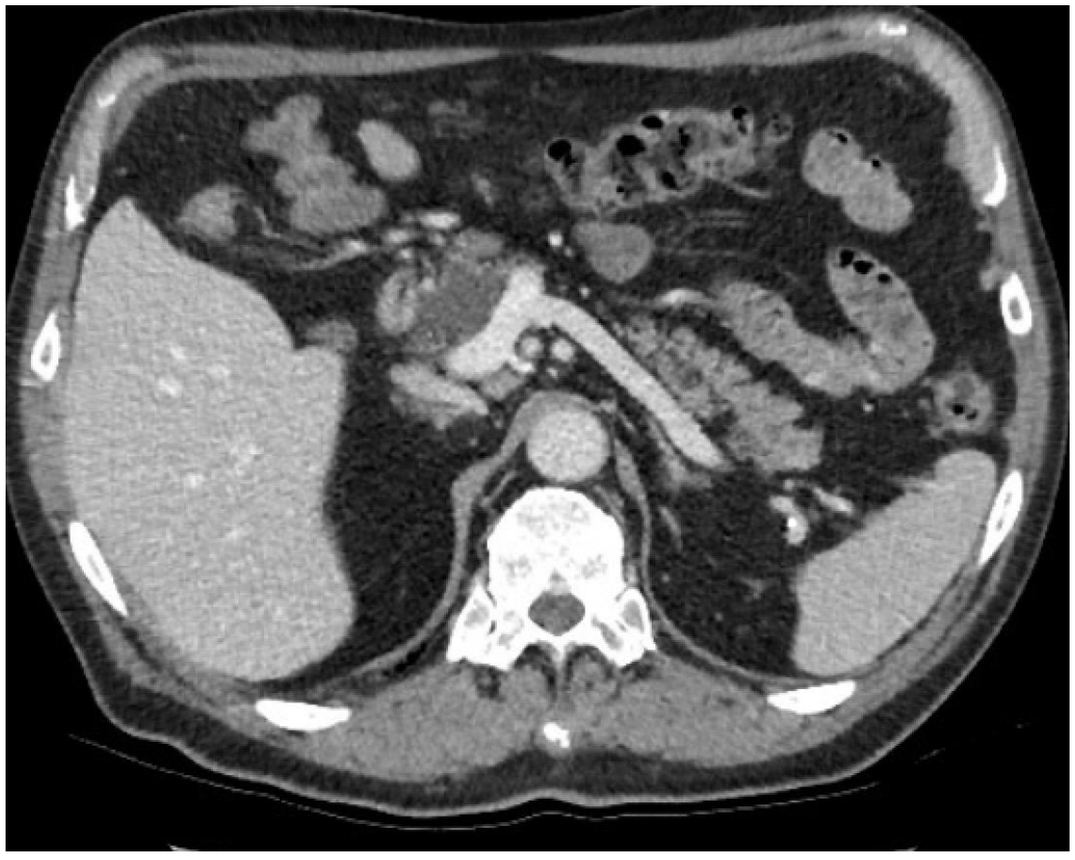
- 65 y.o woman with some non-specific abdo pain
- CT showed 6cm tail of panc hypodense irregular mass
- MRI showed multilobulated cystic mass with central scar
- Characteristic for serous cystadenoma
- No treatment

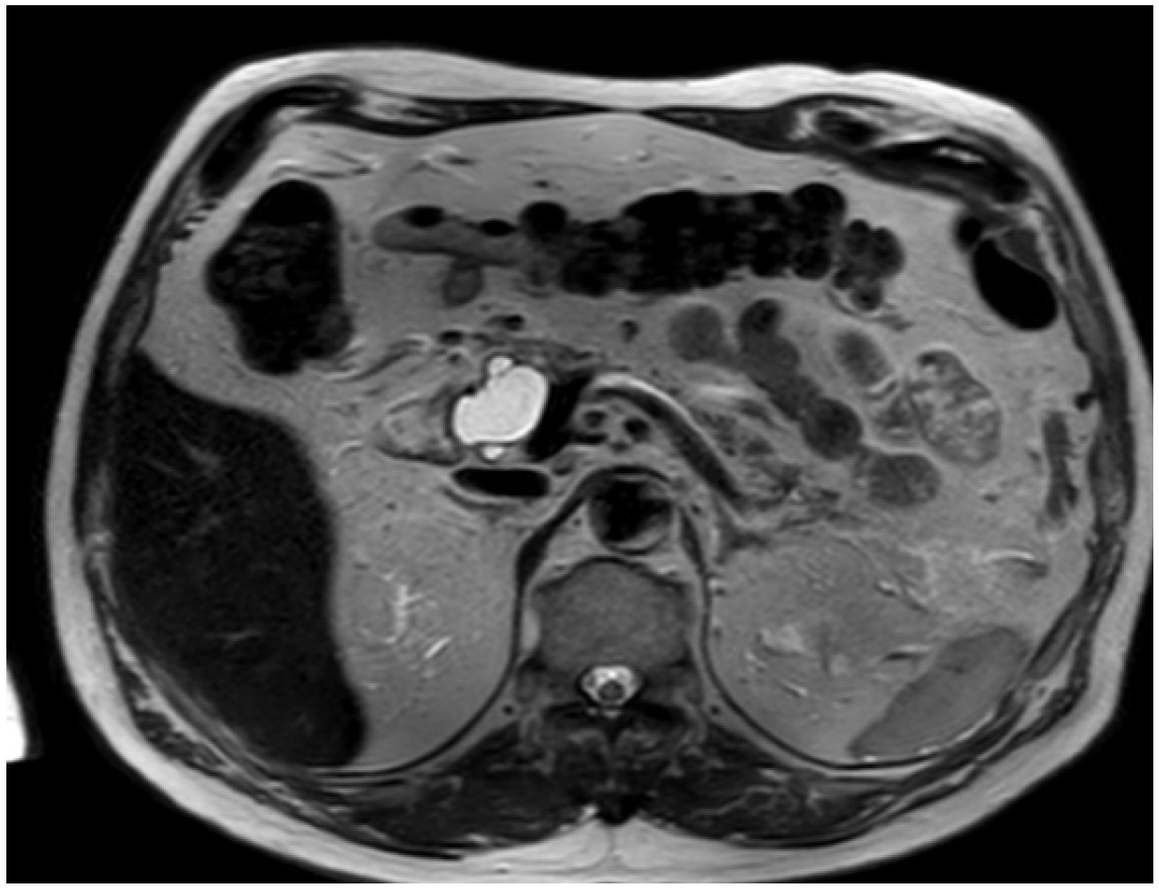


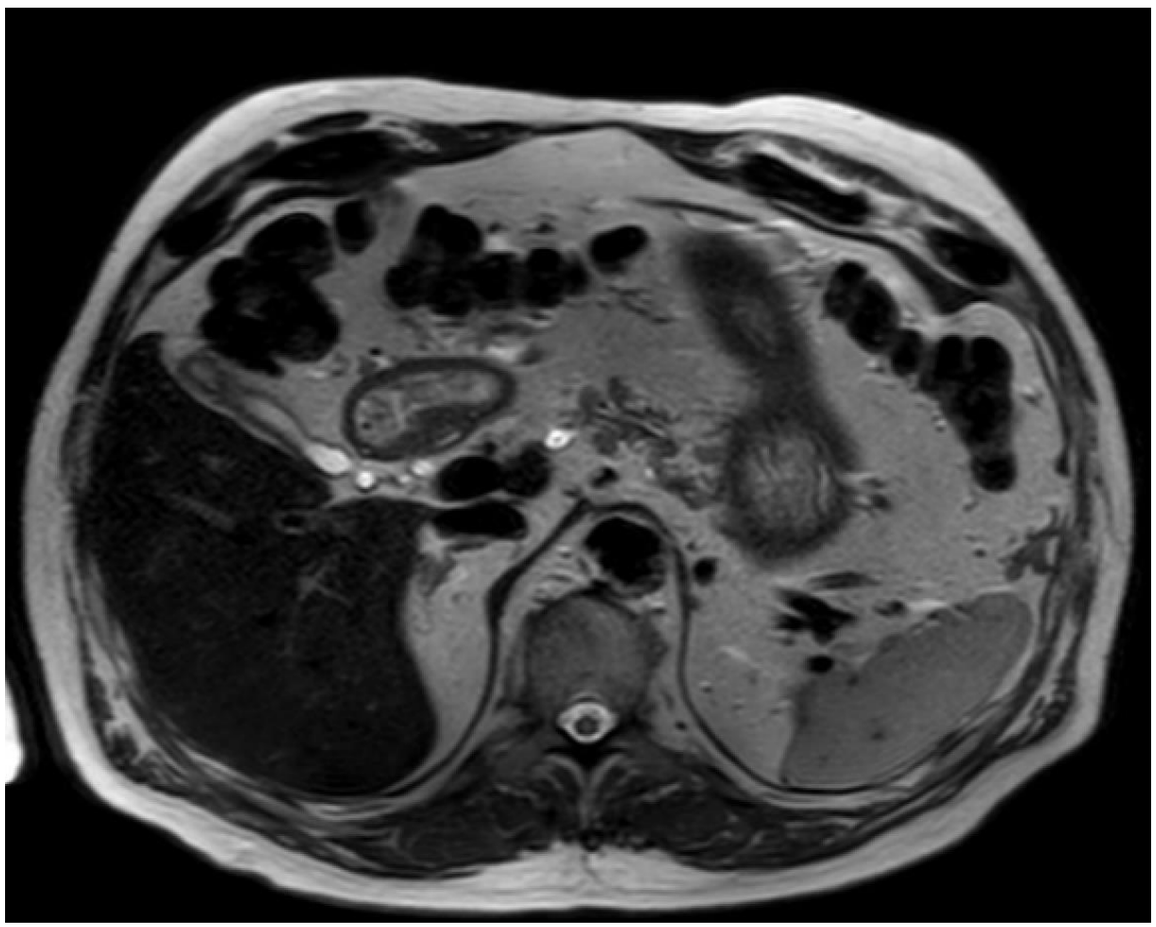


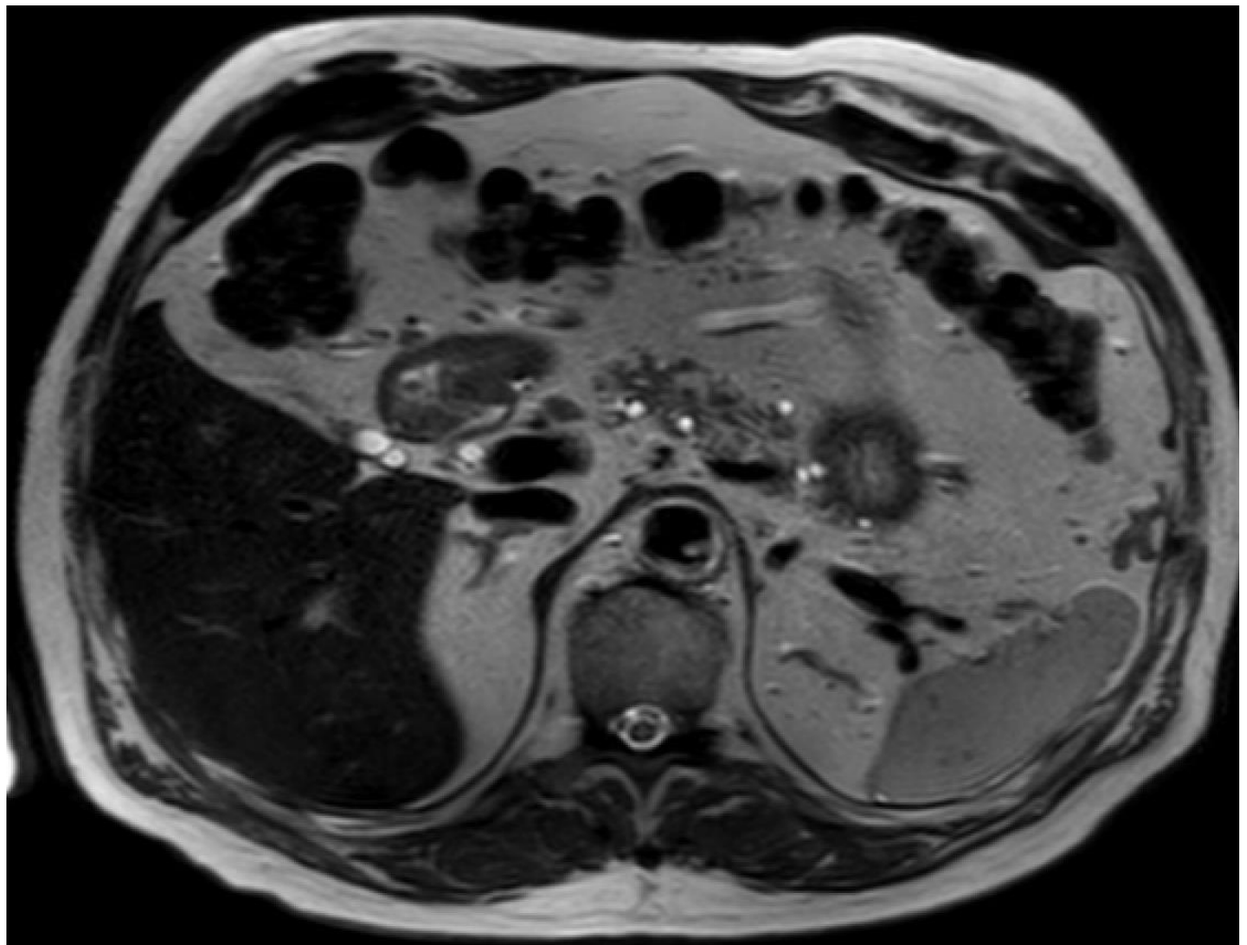
Case 4

- 75 y.o man with colorectal cancer. Staging CT showed 3cm head of panc mass
- MRI showed 3cm lobulated cystic mass with no nodules, normal size main pancreatic duct, numerous other small cysts









Case 4

- Likely multiple side-branch IPMNs
- For EUS in 6 months then MRI every 6-12 months