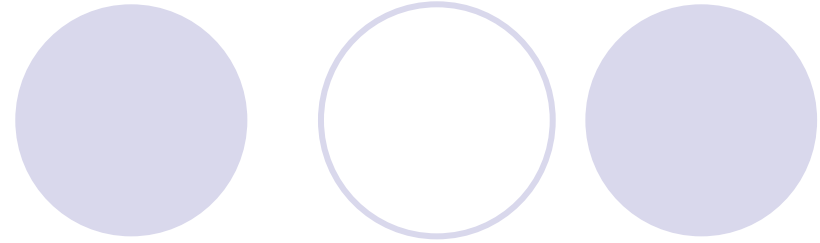


- Name : 黃XX
- Age : 52
- Sex : 女
- Occupation : 廚房阿姨
- Marital status : 已婚

Chief Complaint



- Mild postprandial fullness for 2 months

Present Illness



- This **52** year-old **female** suffered from intermittent post-prandial fullness for 1~2 months. She received abdominal echo and abdominal CT, the images documented a **well-defined, lobulated pancreatic tail cystic mass** with **thin septaes** and **calcifications**, size **4.9 X 5.6 X 5.8 (cm)**. Therefore, she was admitted to our ward for further evaluation.

Family History

A decorative graphic consisting of two rows of circles. The top row has two circles: a solid light purple one on the left and an outlined light purple one on the right. The bottom row has three circles: a solid light purple one on the left, an outlined light purple one in the middle, and a solid light purple one on the right.

- DM : nil
- HTN : mother
- Other : mother died of hepatoma

Personal History

A decorative graphic consisting of two rows of circles. The top row has three circles: a solid light purple circle on the left, a white circle with a light purple outline in the middle, and a solid light purple circle on the right. The bottom row has three circles: a solid light purple circle on the left, a white circle with a light purple outline in the middle, and a solid light purple circle on the right.

- Smoking : denied
- Alcohol : denied
- Food allergy : denied
- Drug allergy : amoxicillin
- Betel nut eating : denied



Past History

- Medical history : denied
- Surgical history :
myoma and tight ovarian cyst s/p
oophorectomy+hysterectomy

Physical Examination



- Body weight : 40kg
- Body height : 151cm
- T/P/R : 36.9°C / 72bpm / 17 per min.
- BP : **160/100** mmHg

Laboratory Data

- CA-199 : 36.15
- CEA : 1.6
- AMYLASE : 82
- LIPASE : 22.0

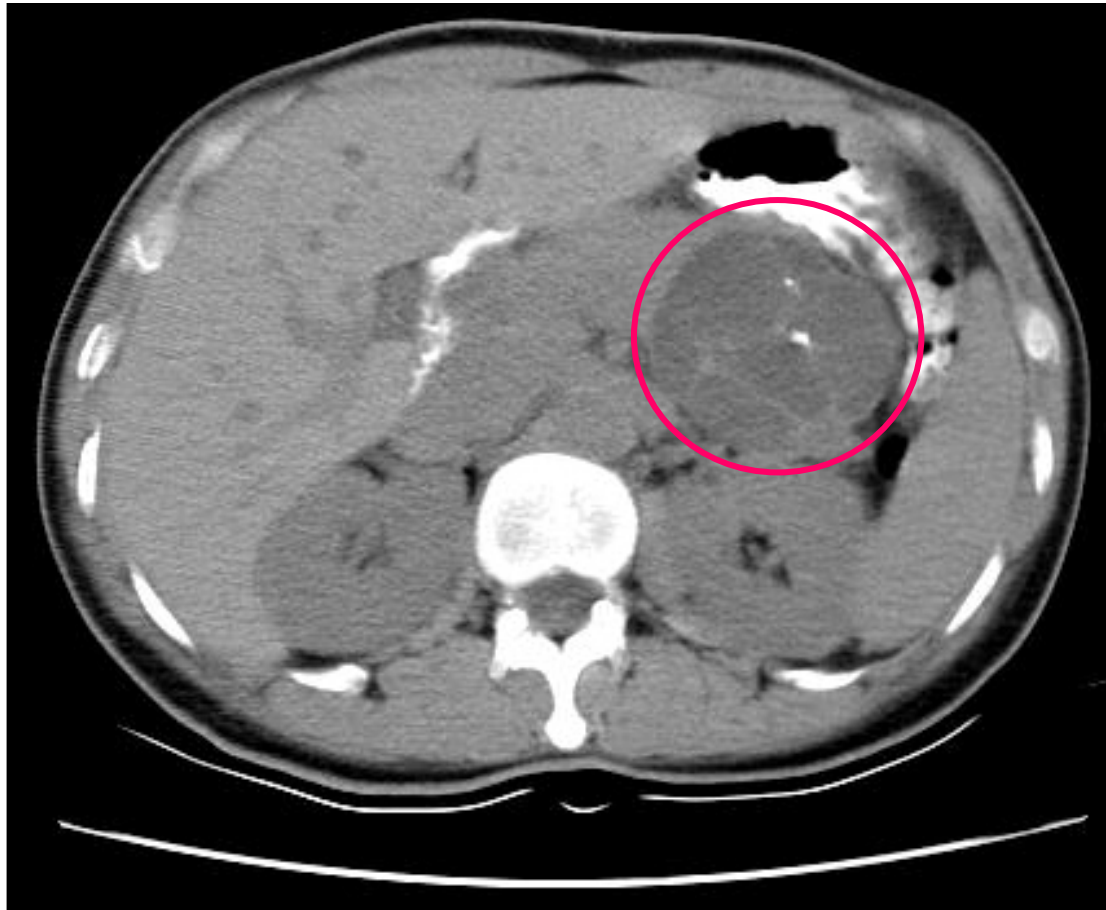
ALL IN NORMAL RANGE



Imaging finding-US 04/15

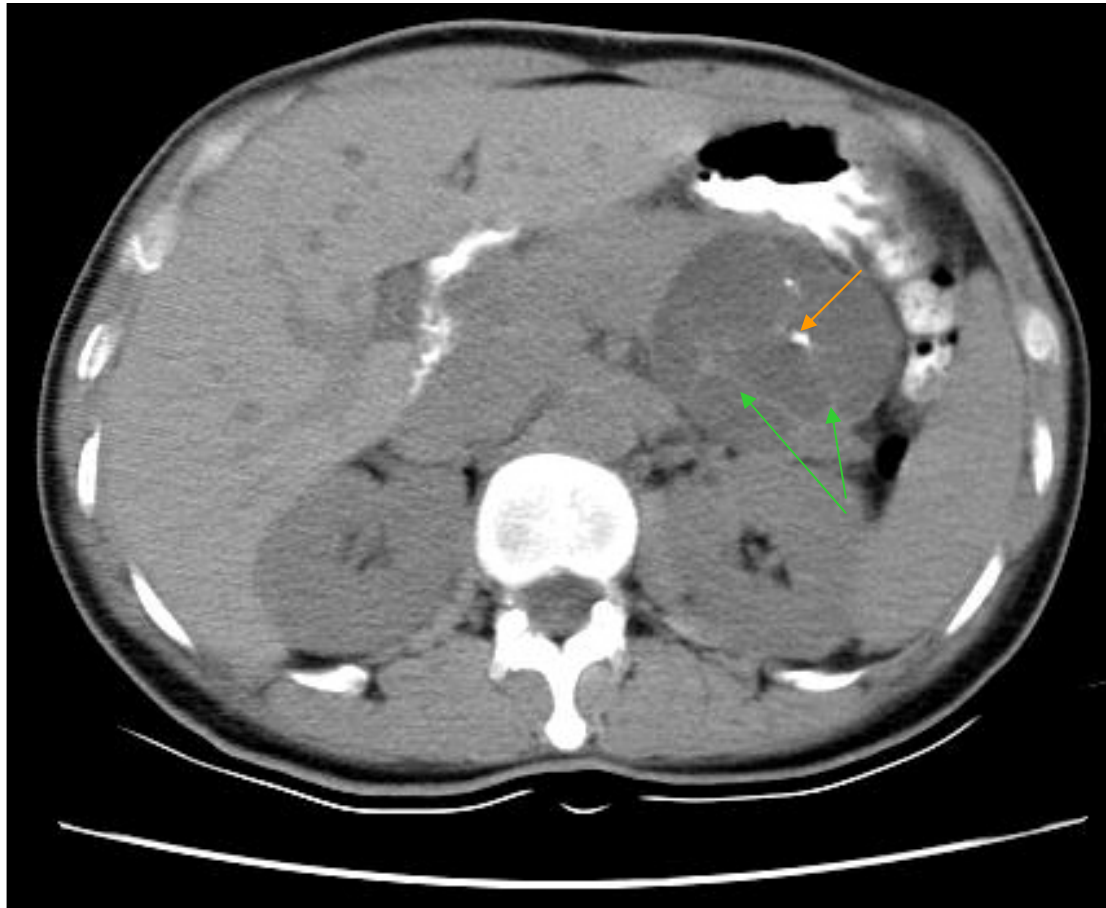
- A cystic lesion with a hyperechoic focus in it (7.2mm) at position of pancreatic tail, max 60.1 mm x 52.4 mm
- No obvious blood flow noted with doppler scan

Imaging finding-CT 04/20



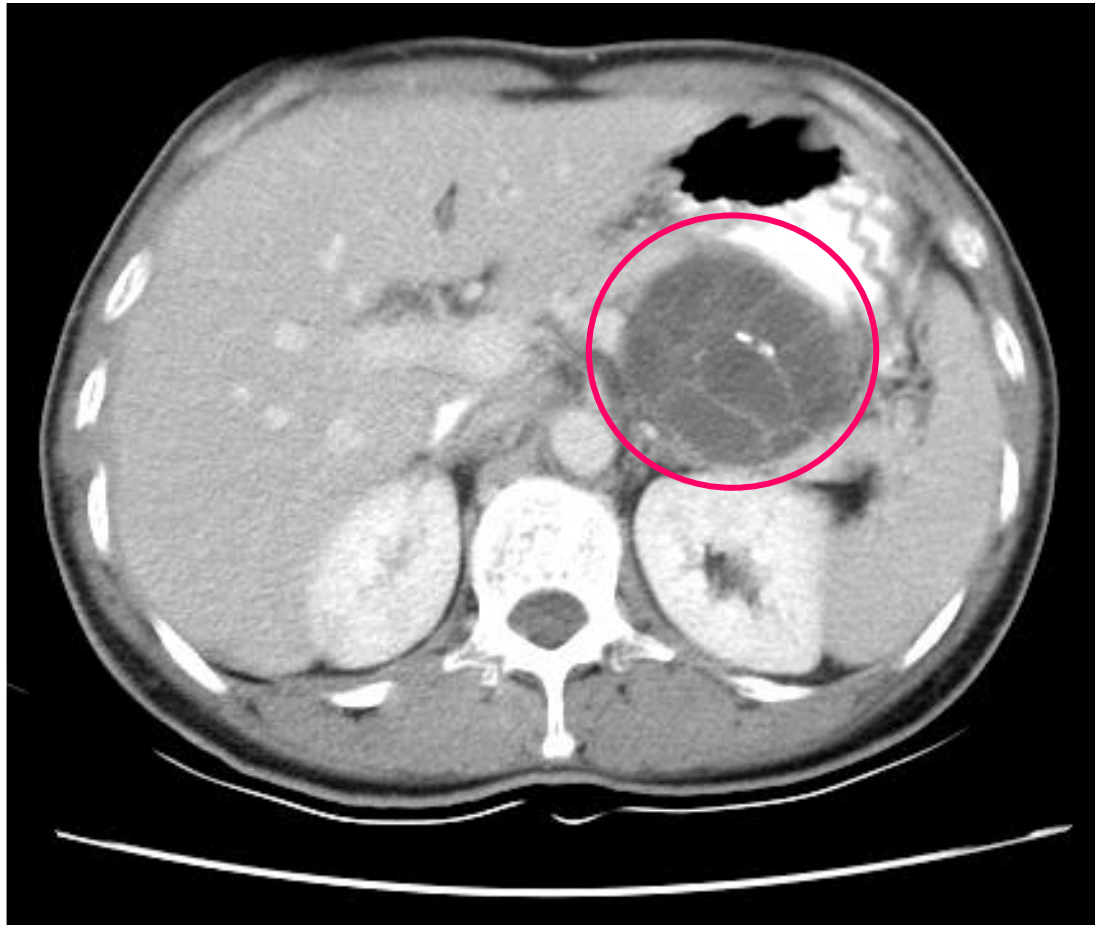
- A well-defined, lobulated pancreatic tail cystic mass with thin septa and calcifications are seen

Imaging finding-CT 04/20



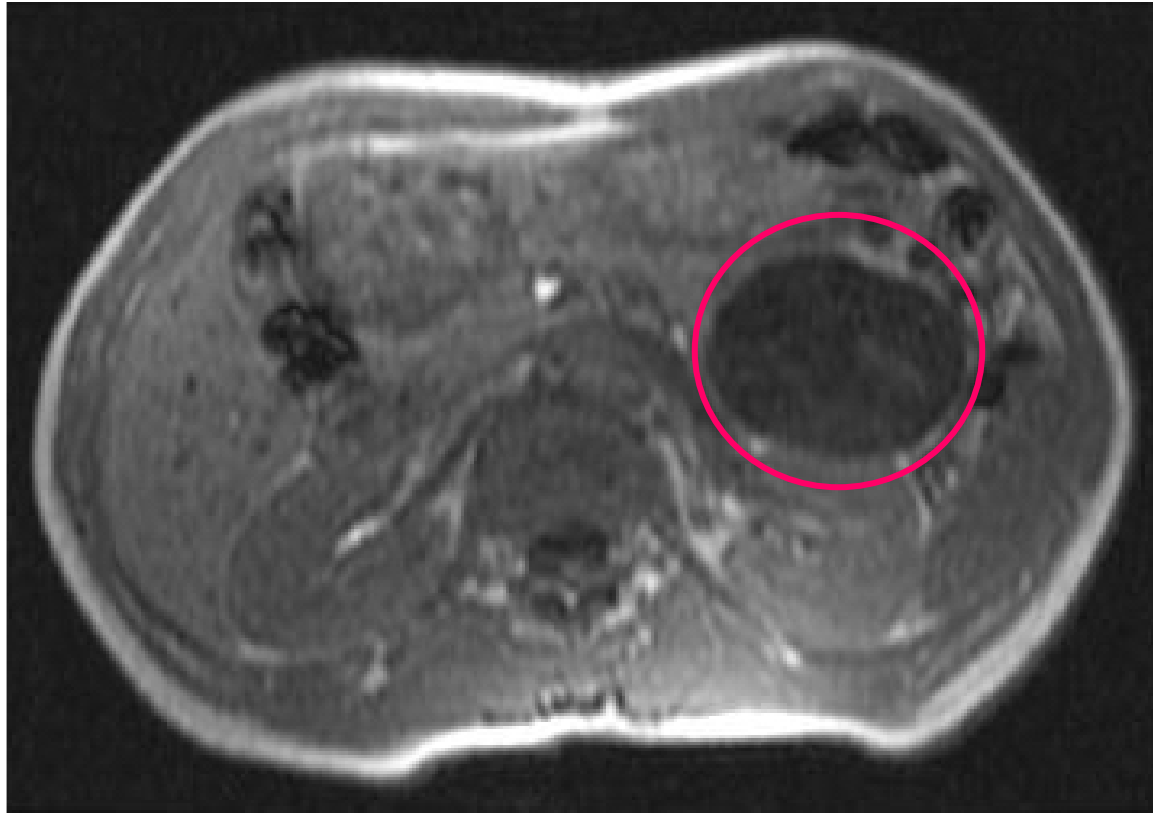
- A well-defined, lobulated pancreatic tail cystic mass with **thin septa** and **calcifications** are seen
- Calcification is more common in serous than mucinous tumor (38%:16%)

Imaging finding-CT 04/20



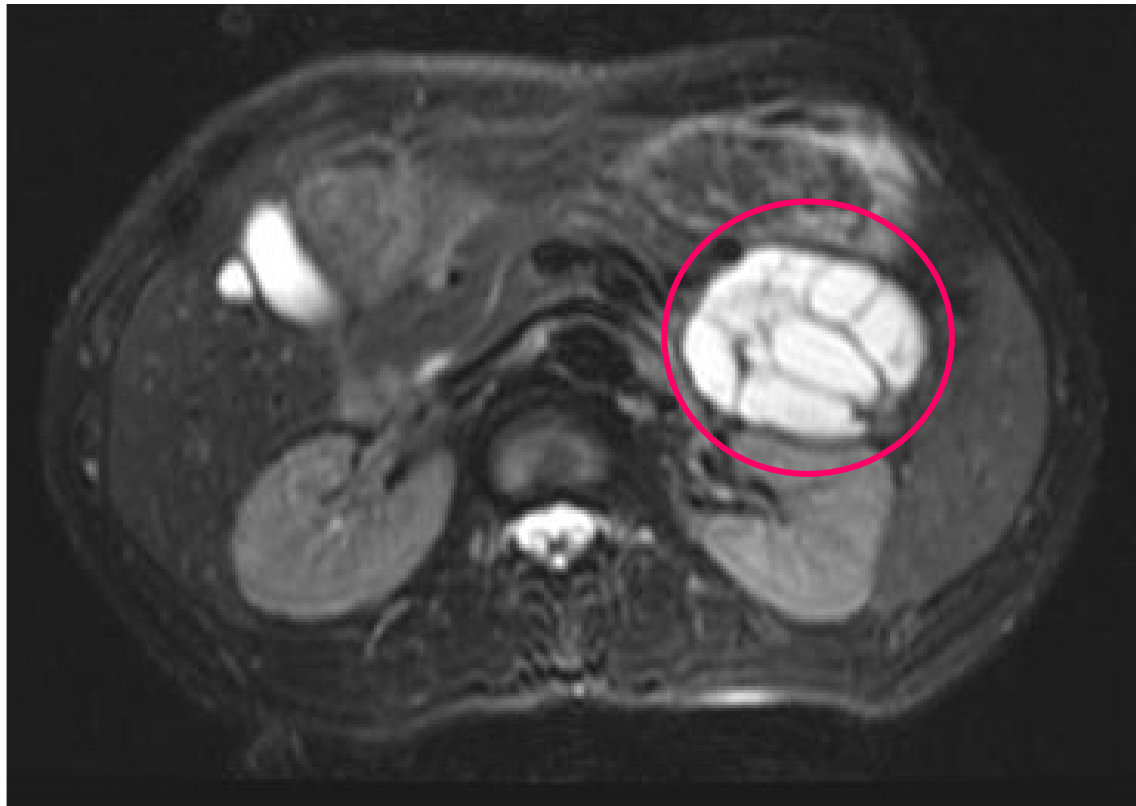
- Enhancement of thin internal septa & peripheral wall.

Imaging finding-MR T1W



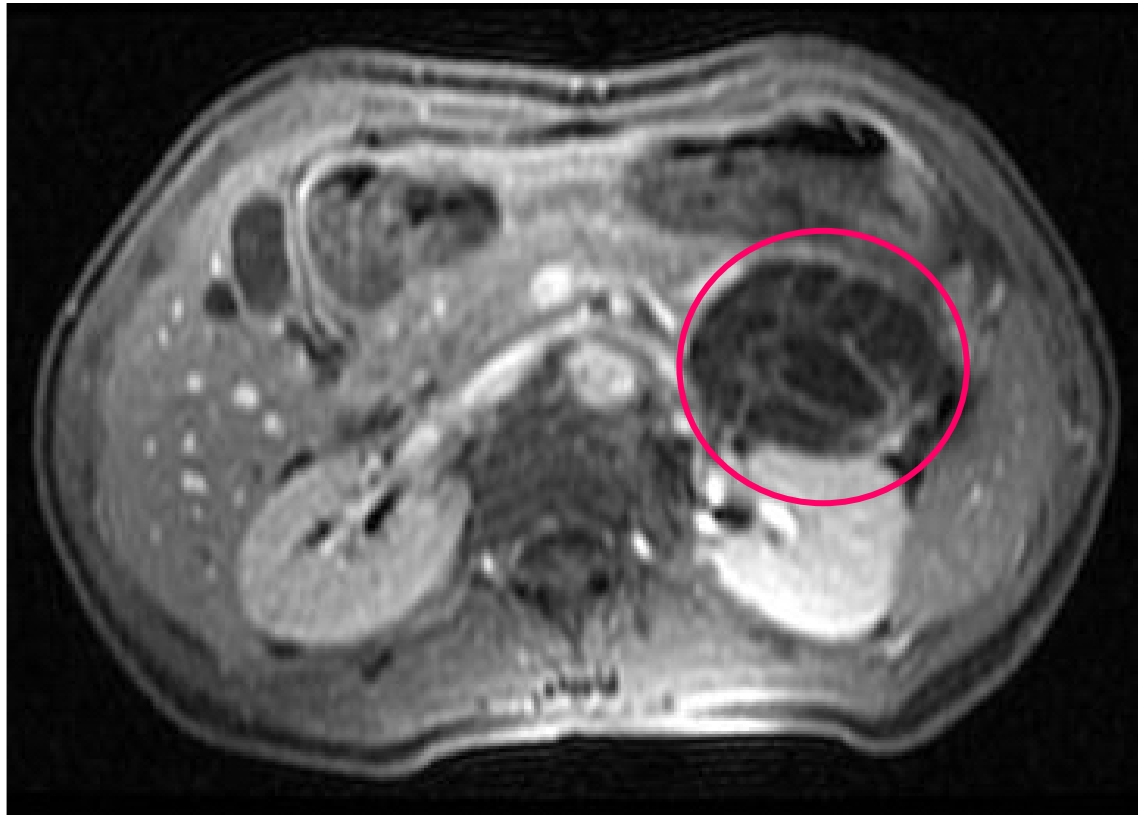
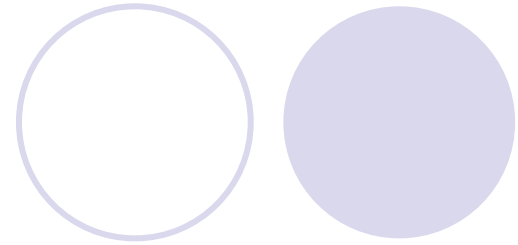
- Shows variable signal intensity based on fluid content.
- Fluid-like material--hypointense
- Proteinaceous & hemorrhagic--hyperintense

Imaging finding-MR T2W



- Cysts— hyperintense
- Internal septations— hypointense

Imaging finding-MR T1 C+



Cyst wall & septa are well demonstrated.



Differential Diagnosis

- Microcystic (serous) cystadenoma
- Pseudocyst
- Macrocystic (mucinous) cystadenoma

Analysis of cyst fluid in the evaluation of cystic neoplasms

Pathologic Entity	Amylase Level	CEA Level	Viscosity	Mucin Finding	Cytologic Features
Serous cystadenoma	Low	Low	Low	Negative	Glycogen-rich cells
Mucinous cystadenoma	Low	High	High	Positive	Mucinous cells
Pseudocyst	High	Low	Low	Negative	Inflammatory cells

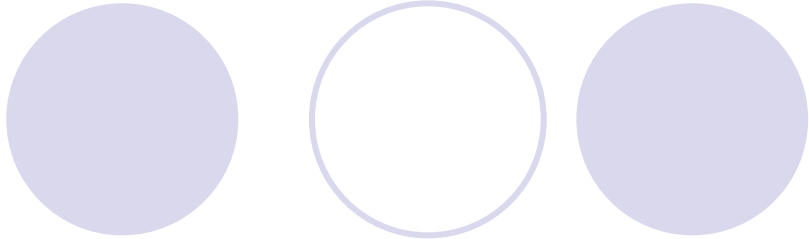
Microcystic (serous) cystadenoma



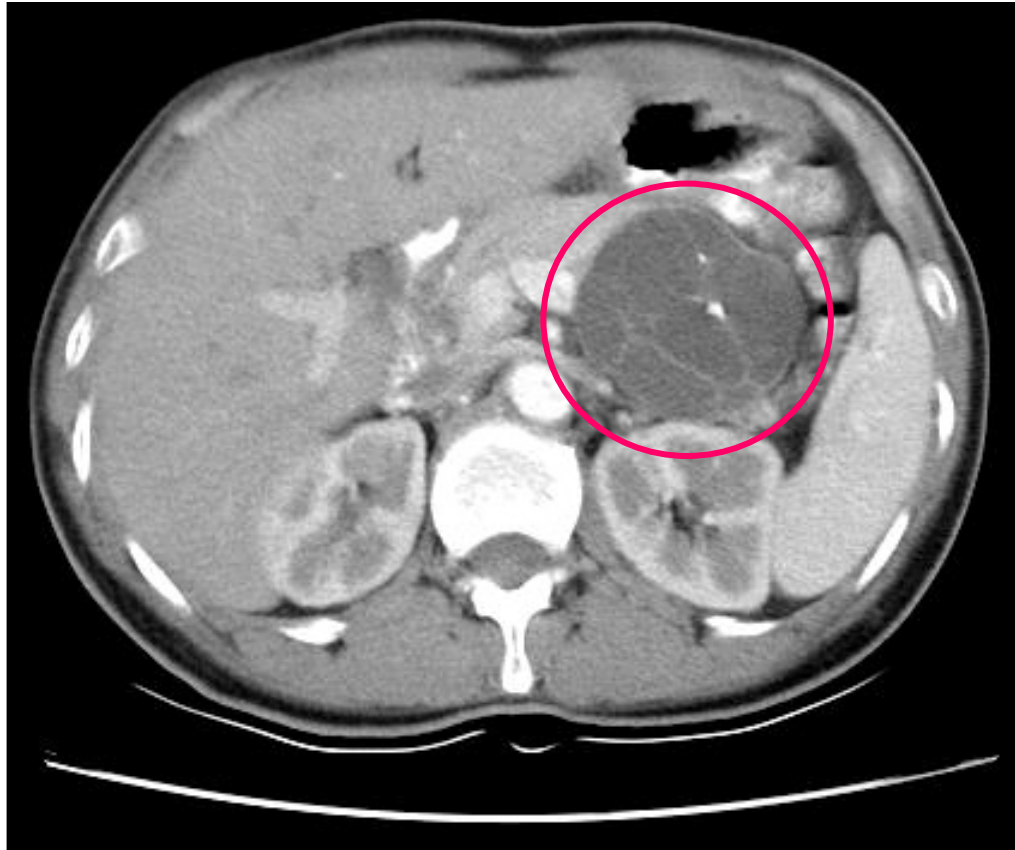
- Best imaging clue :
Sponge-like mass in pancreatic head.
- Innumerable small cysts (1~20mm) separated by thin septa
- Most frequently seen in ± 65 y/o women



Pseudocyst

- 
- Usually unilocular
 - **Key is history of pancreatitis**
 - most patients have left-sided or bilateral pleural effusions
 - Round/oval

Macrocytic (mucinous) cystadenoma



- Best imaging clue :
Enhancing multiseptated mass in body\tail of pancreas.
- Cysts < 6 in numbers
- Larger than 2 cm
- Tail location is more common
- Most frequently seen in ± 50 y/o women



Final Diagnosis

Macrocystic (mucinous) cystadenoma

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Pathology

- Grossly,

It is a multicystic lesion with clear fluid and **mucinous** substance.

- Microscopically,

Cuboid to high columnar lining cells and surrounded by thick fibrous wall

Diagnosis : mucinous cystic neoplasm



Discussion-Presentation

- Asymptomatic/epigastric pain/abdominal mass/anorexia
- Symptoms of mass effect
- More common in middle-aged women
- Most common location : tail of pancreas
- Rarely tumor may manifest with local invasion/distant metastasis
- Very rarely present Zollinger-Ellison syndrome



zollinger-ellison syndrome

- Gastrin ↑
- Most common presentation is duodenal ulcer
- Diarrhea, abdominal pain, esophageal reflux are common



Discussion-Laboratory Data

- Levels of CEA ↑
- Levels of CA 19-9 ↑ (in 80% of patients)
- Cyst fluid levels of CA 72-4 : Good tumor marker



Discussion-imaging finding

- ***X-ray*** : Plain radiographs may show tumor calcification in 10-15% of cases
- ***CT scan***: show a well-defined, unilocular or multilocular, externally smooth, round-to-ovoid mass with fluid. Larger cysts may demonstrate small daughter cysts along its internal surface. The cysts are 2-26 cm.



Discussion-imaging finding

- ***MRI*** :

T1W : Shows variable signal intensity based on fluid content.

T2W : Cysts– hyperintense

Internal septations– hypointense

T1 C+ : Cyst wall & septa are well demonstrated

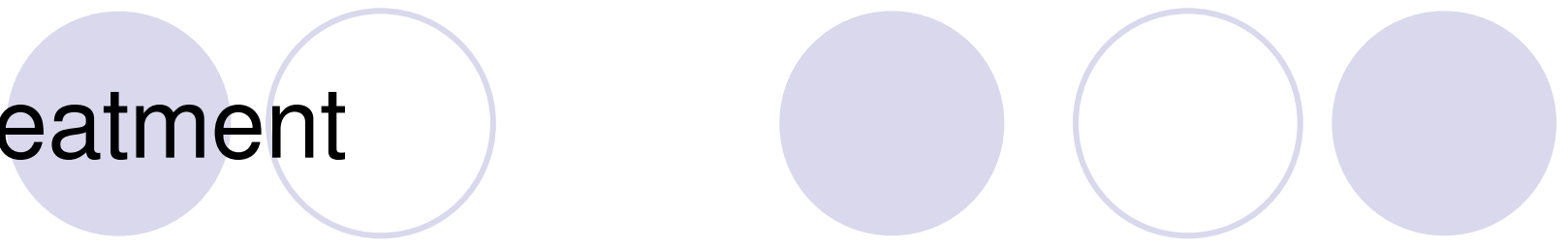


Discussion-imaging finding

- ***Ultrasound*** : Sonography reveals a large (usually >5cm), cystic mass sometimes with numerous septa.
- ***Angiography*** : usually **hypovascular** on angiography. The only vascularity present is in the walls, septae.

Treatment

- Complete surgical excision



Prognosis



- Actuarial 3- and 5-year survival for patients with benign disease was 95% and 83%
- and for those with malignant disease, rates were 52% and 44%



Reference

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- Pancreas, Mucinous Cystic Neoplasm, Ali Nawaz Khan etc. eMedicine
- Imaging of Mucinous Cystadenoma of pancreas, SB Patel etc, Ind J Radial Imag 2003 13:4:395-397
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