Cystic Pancreatic Lesions

Pancreatic cysts are common findings on MRI. The approach to decision making and interpretation involves a combination of clinical assessment, classification of imaging findings to establish the most likely pathologic diagnosis. The establishment of a definitive pathologic diagnosis with imaging is often not possible and there is a high frequency of insignificant benign or indolent pancreatic cysts. As a result, there is a danger of overutilization of imaging followup. Guidelines are being established to guide the management of patients with pancreatic cysts and these are reviewed with case examples.
Review article

International consensus guidelines 2012 for the management of IPMN and MCN of the pancreas

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Are any of the following high-risk stigmata of malignancy present?

- i) obstructive jaundice in a patient with cystic lesion of the head of the pancreas,
- ii) enhancing solid component within cyst,
- iii) main pancreatic duct ≥10 mm in size

Yes

Consider surgery, if clinically appropriate

No

Are any of the following worrisome features present?

**Clinical:** Pancreatitis

**Imaging:**
- i) cyst ≥3 cm,
- ii) thickened/enhancing cyst walls,
- iii) main duct size 5-9 mm,
- iv) non-enhancing mural nodule
- iv) abrupt change in caliber of pancreatic duct with distal pancreatic atrophy.

If yes, perform endoscopic ultrasound

Yes

Are any of these features present?

- i) Definite mural nodule (s)
- ii) Main duct features suspicious for involvement
- iii) Cytology: suspicious or positive for malignancy

<1 cm

CT/MRI in 2-3 years

1-2 cm

CT/MRI yearly x 2 years, then lengthen interval if no change

2-3 cm

EUS in 3-6 months, then lengthen interval alternating MRI

EUS with EUS as appropriate. Consider surgery in young, fit patients with need for prolonged surveillance

>3 cm

Close surveillance alternating MRI with EUS every 3-6 months. Strongly consider surgery in young, fit patients

No

What is the size of largest cyst?

<1 cm

CT/MRI in 2-3 years

1-2 cm

CT/MRI yearly x 2 years, then lengthen interval if no change

2-3 cm

EUS in 3-6 months, then lengthen interval alternating MRI with EUS as appropriate. Consider surgery in young, fit patients with need for prolonged surveillance

>3 cm

Close surveillance alternating MRI with EUS every 3-6 months. Strongly consider surgery in young, fit patients

Inconclusive
Incidental Pancreatic Cyst

Managing Incidental Findings on Abdominal CT: White Paper of the ACR Incidental Findings Committee

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**Asymptomatic Patient with Incidental Pancreatic Cystic Mass**
Detected on CT, MRI (with or without contrast) or US

- **<2 cm**
  - Single follow-up in 1 yr, preferably MRI:
    - Stable: Benign, no further follow-up
    - Growth: Uncharacterized cystic mass
      - Follow-up yearly

- **2-3 cm**
  - Imaging characterization, preferably MRI/MRCP:
    - Uncharacterized cystic mass
      - Follow-up every 6 mo for 2 yrs
    - BD-JPMN
      - Follow-up every 2 yr
    - Serous cystadenoma

- **>3 cm**
  - Serous cystadenoma
    - Consider resection when ≥ 4 cm
  - Uncharacterized cystic mass or other cystic neoplasm
    - Cyst aspiration
  - Resect, depending on co-morbidities and risk