Managing Incidental Pancreatic Cysts: What to do?

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Incidental Cystic Pancreatic Lesion

Angst for
- Radiologist
- Referring Doc
- Patient

Serous Cystadenoma (SCA)
Managing Incidental Findings on Abdominal CT: White Paper of the ACR Incidental Findings Committee

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Plan

- ACR “white paper” approach to the incidental pancreatic cyst
The Facts

- Increasingly encountered
- Most asymptomatic <3cm unilocular cysts are not invasive cancers
- Imaging follow-up is generally a reasonable course of action
  - Referral to GI doc or HBP surgeon
- Incidental ductal adenocarcinoma is rare
- Cystic ductal adenocarcinoma is rare
- Patient factors drive decisions
- A Whipple is a big deal
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
      - Follow-up yearly
  - Growth
    - Uncharacterized cystic mass
      - Follow-up yearly

- 2.3 cm
  - Imaging preferred
  - Stable
    - Benign, no further follow-up
  - Growth
    - Uncharacterized cystic mass or other cystic neoplasm
      - Cyst aspiration
      - Resect, depending on co-morbidities and risk

- >3 cm
  - Resect, depending on co-morbidities and risk

Hyperamylasemia
Recent onset diabetes
Epigastric pain
Weight loss
Steatorrhea
Jaundice
DVT's
“67 yo man, weight loss, DVTs”

Dx: Cystic ductal adenocarcinoma
<2 cm

Single follow-up in 1 yr, preferably MRI

- Decrease interval if younger
- Omit if advanced age
- Consider limited T2-W for F/U

Stable

- Benign, no further follow-up

Growth
"woman with history of lung CA"

Dx: SCA (presumed) or side branch IPMN
Natural History of <2 cm cysts

Handrich SJ et al. AJR. Vol 184; Jan 2005

- Retrospective review <2cm cysts (U of W)
- 79 patients, 1985-1996
- Radiographic surveillance, clinical F/U, phone call
- Most remained stable
- None developed pancreatic disease
- None died of pancreatic disease
Risk of malignancy in <3 cm cysts


- Retrospective review (Mass Gen)
- 510 patients, 1998-2004
- 86 patients underwent surgery or aspiration/bx
  - 75 benign
  - 8 borderline
  - 3 carcinoma in situ
  - 0 invasive cancers

- Unilocular cysts associated with benign course
- Septations associated with borderline or in situ lesions
Risk of malignancy in <3 cm cysts

Lee et al. Gastrointest Surg. 2008

- Multiple institutions (U of M)
- 166 cases, 1998-2006
- In assx pts, risk of occult malignancy was 3%
- Risk factors for malignancy:
  - Male
  - Older age
  - Symptoms
  - Solid/septated components
  - PD/CBD dilation
Small lesions (<2 cm)

The trouble with small lesions is that the classic morphologic features are usually absent.
Intraductal Papillary Mucinous Tumors (IPMT/IPMN)

**synonyms:** ductectatic, intraductal papillary adenocarcinoma, villous adenoma

Ductal origin with voluminous mucin secretion

May involve the main duct or branch duct

May be malignant or premalignant but may grow slowly

Main duct involvement suggests malignancy

Side branch lesions often benign

From: Diagnostic Imaging Abdomen, Federle M. P., ed. Amirsys 2004
“45 yo research subject”

Dx: (presumed) side branch BD-IPMN
68 yo woman with pancreatic abnormality (2008)
Two years later. Intervening pancreatitis

“fish mouth” ampulla, characteristic of IPMN
Serous Cystadenoma (SCA)

- Women > men
  - (1-5:1)
- 60+ years
- Innumerable small (1-20 mm) cysts
- Central scar
- Central calcification
- Produces glycogen
- Head > tail
- Benign

*From: Diagnostic Imaging Abdomen, Federle M. P. ,ed. Amirsys 2004*
“68 yo woman with hematuria; incidental pancreatic lesion”

Dx: SCA
>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
Peripheral calcifications, suggestive of a malignant process

Dx: cystic neuroendocrine
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