Incidental pancreatic cysts

- EXTREMELY common
- Source of uncertainty and anxiety about optimum interpretation and management
Incidental pancreatic cysts on CT- ACR white paper recommendations - 2010

Managing Incidental Findings on Abdominal CT: White Paper of the ACR Incidental Findings Committee
Incidental pancreatic cysts on CT - ACR white paper recommendations - 2017

Managing Incidental Findings on Abdominal CT: White Paper of the ACR Incidental Findings Committee
Journal of the American College of Radiology, Volume 14, Issue 7, July 2017
Incidental pancreatic cysts - concepts

- Histopathology does not have a defined category for “simple pancreatic cyst”
  - Does not fit with radiologists clinical experience
  - Vast majority of small, simple pancreatic cysts are not resected
Incidental pancreatic cysts - concepts

- Classification of pancreatic lesions on histopathology depends on lining of cyst wall
  - Mucinous lining of any type thought to suggest “neoplastic potential”
- Experienced histopathologists note some cysts with mucinous lining have extremely benign features with no malignant potential
  - Termed “non-neoplastic mucinous cyst of the pancreas”
- Pan-IN classification of pancreatic ductal epithelium hyperplasia
  - Mucinous lining requires classification into a “neoplastic category”
Incidental pancreatic cysts - concepts
IPMN
IPMN - postop
Pancreatic cyst work-up

➢ Fluid sampling?
Pancreatic cyst fluid analysis

- van der Waaij et al 2005
  - Meta-analysis of 12 studies evaluating performance of fluid aspiration for diagnosis of pancreatic cysts

- Conclusions:
  - CEA > 800 ng/mL strongly suggests MCA
  - CEA < 5 ng/mL or CA 19-9 < 37 U/mL strongly suggests pseudocyst or serous cystadenoma
  - Amylase < 250 virtually excludes pseudocyst
  - Cytology is < 50% sensitive for malignancy

40 yo F with "pancreatic cyst" post EUS sampling
57 yo F with “pancreatic cyst” post EUS sampling
69 yo F pancreatic cyst on CT-ERCP aborted due to hemorrhage
34 yo F post ERCP
64 yo F with pancreatic cyst
IPMN- seeded after sampling
MRI is optimum imaging method for acute and chronic inflammation of the pancreas
  - Demonstrates pathology that may be invisible on other imaging methodologies

Diagnostic specificity of pancreatic cysts requires detailed analysis of internal cyst architecture

Cyst fluid sampling of doubtful additional utility above imaging
  - At minimum, MRI provides a roadmap for invasive procedures