

## CYSTIC NEOPLASMS OF THE PANCREAS

- Less than 10% of pancreatic neoplasms
- incidental finding
  - Serous cystadenoma (32-39%)
  - Mucinous cystadenoma (10-45%)
  - Intraductal Papillary Mucinous Neoplasm (21-33%)
  
  - Solid pseudopapillary neoplasm (<10%)
  - Cystic endocrine neoplasm (<10%)
  - Ductal adenocarcinoma with cystic degeneration (<1%)
  - Acinar-cell cystadenocarcinoma (<1%)

### Diagnosis

- Serous and mucinous neoplasms
  - Mean age 50 yrs
  - Female: male = 4:1
  - Asymptomatic ( $\leq 75\%$ )
- Symptoms:
  - Abdominal pain
  - Mass
  - Jaundice
  - Prior pancreatitis

### Serous Cystic Neoplasms

- simple glycogen-rich cuboidal epithelium
- Most common
- Anatomic predilection: body and tail 2/3; head 1/3
- Minimal malignant potential
  - Multiple cysts
  - Polycystic (70%)
  - Oligocystic
- Honeycomb (like microcysts)
- Central stellate scar/calcification (30%)

### Mucinous Cystic Neoplasms

- middle aged women
- incidental
- Anatomic predilection: body and tail 95%
- unilocular
- Thick capsule
- No communication w/ pancreatic duct

IPMN

- Proximal sites (60% at the head of pancreas)
- Males, 60's
- A/w Pain, chronic Pancreatitis; 20% have a malignancy at the time of diagnosis
- Cystic dilatation of main PD or side branch
- Mucin-filled ampulla (ERCP)
- communication w/ pancreatic duct
- higher malignant potential than MCN

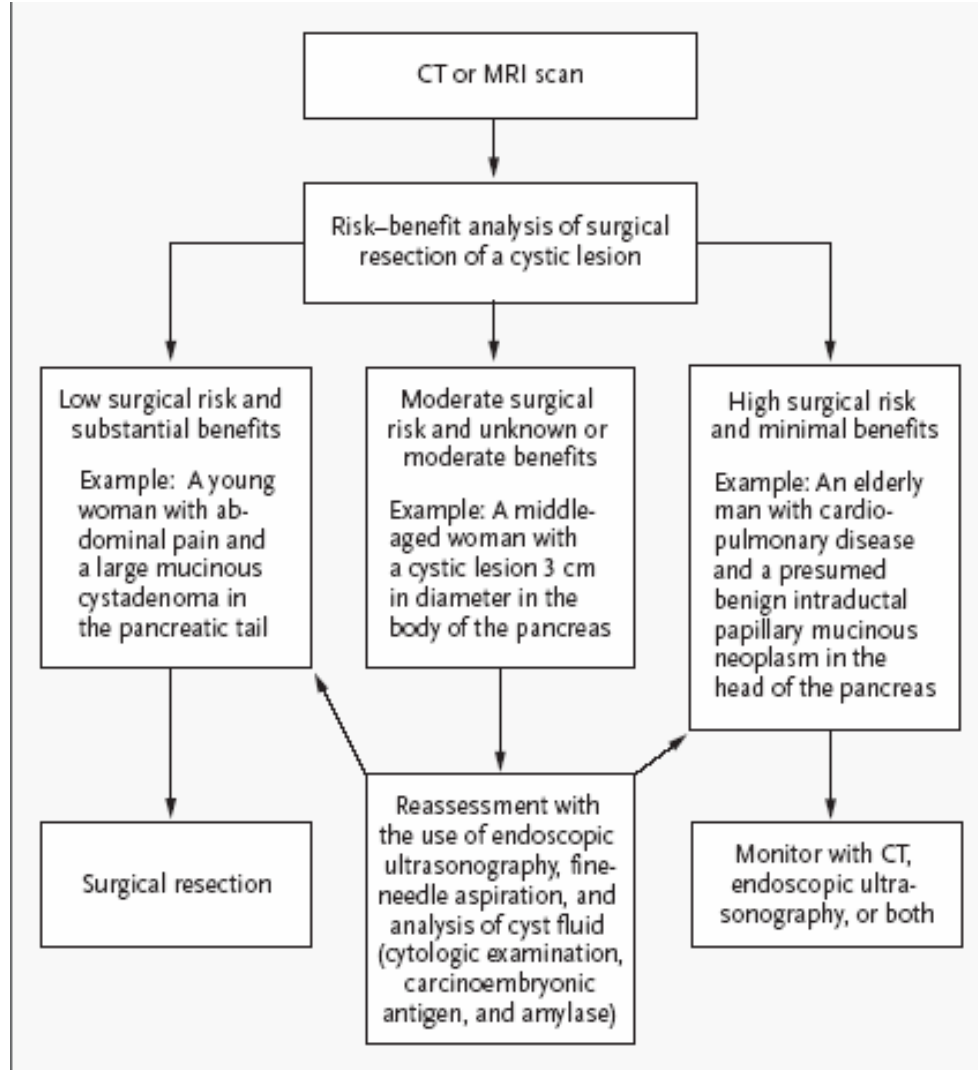
Cystic Pancreatic Lesions

Lesion	Amylase	CEA	Viscosity	Mucin	Cytology
Serous cystadenoma	↓	↓	↓	Negative	Glycogen-rich cells
Mucinous cystic neoplasms	↓	↑↑↑	↑	Positive	Mucinous cells
Pseudocyst	↑↑↑	↓	↓	Negative	Inflammatory cells

Treatment

- Serous cystic lesions
  - Resection only for symptoms, or ambiguity
  - Enucleation, central pancreatectomy?
- Mucinous cystic lesions
  - > 2 cm require resection 2nd malignant potential
  - Operation based on location
- IPMN
  - Surgery indicated
  - Total pancreatectomy vs. subtotal w/ frozen section margin

## Algorithm



## Results

- Generally favorable
- 5 yr survival:
  - mucinous cystadenoma > 95%
  - Mucinous ca 17-33%
  - IPMN > 50%; <30% if invasive
- Surveillance?

## Reference

- Brugge WR, Lauwers GY, Sahani D, del Castillo CF, Warshaw AL. Cystic Neoplasms of the Pancreas. *N Engl J Med* 2004;351:1218-26.

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