



Pancreatic Diseases A Surgeons Perspective

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Questions to answer:

- Is there a suspicion for cancer?
- Does this lesion need resection?
- Is this lesion resectable?
- What is it?
- How can we help this patient live longer and better?



Suspicious lesions

- Solid lesion in the pancreas
- No history of pancreatitis
- New history of diabetes
- Growth
- Radiologic characteristics
- Other risk factors



Pancreatic Masses: Differential Diagnosis

- **SOLID:**
 - Carcinoma
 - Pancreatitis
 - Endocrine
 - Inflammation
 - Peri-pancreatic
 - “Other”
 - Imaging artifact
- **CYSTIC:**
 - Pseudocysts
 - Serous, Microcystic
 - Mucinous, macrocystic
 - Adenocarcinoma
 - Neuroendocrine
 - Papillary Cystic
 - “Other”



Pancreatic Masses: Workup

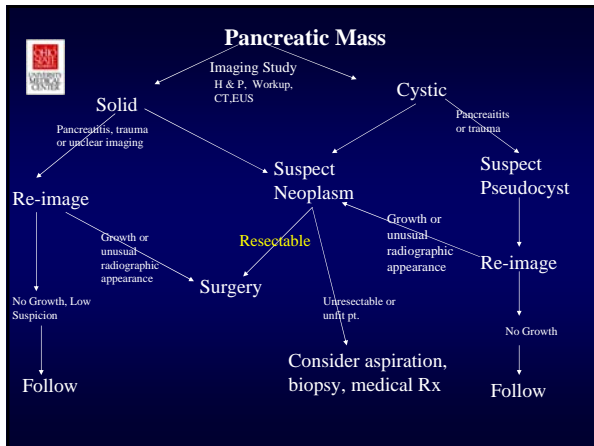
- **History**
 - Pancreatitis
 - Trauma
 - Surgery
 - Systemic Disturbances
 - Weight loss
 - Endocrine failure
 - Exocrine function
 - Drugs
- **Physical**
 - Wasting
 - Jaundice
 - Lymphadenopathy
 - Palpable Masses
 - Stool Guaiac
 - Other Diseases
- **Laboratory**



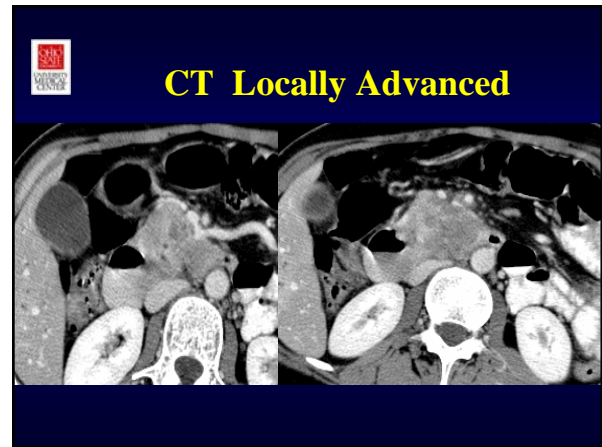
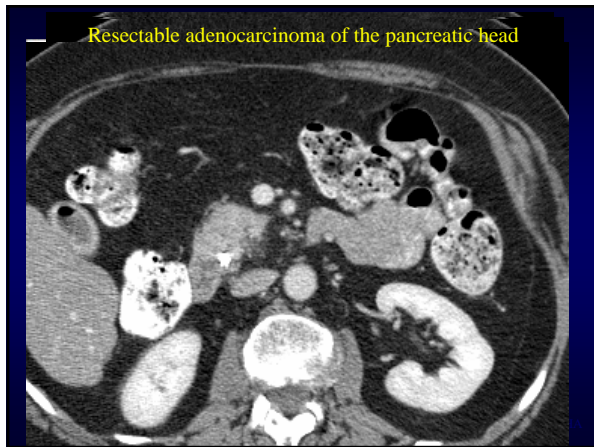
PANCREATIC CANCER Tumor Markers

	CEA	CA 19-9
Sensitivity	416/742 (56%)	786/952 (83%)
Specificity	1352/1809 (75%)	4495/5485 (82%)

Muscarella et al. 199

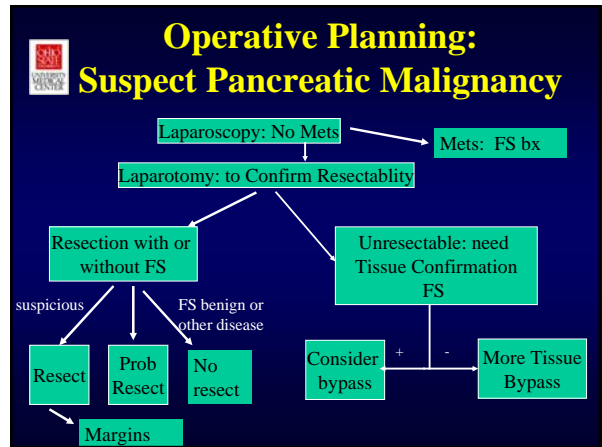
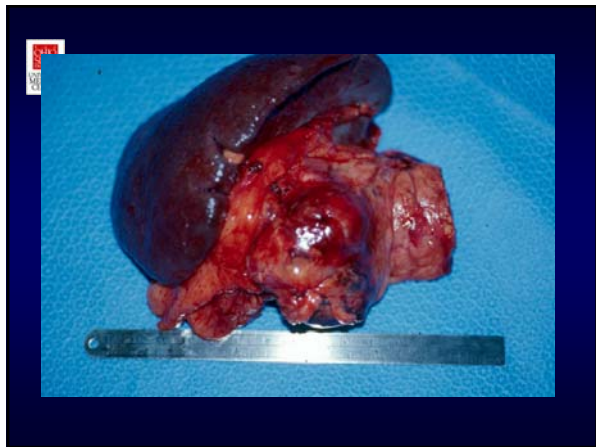
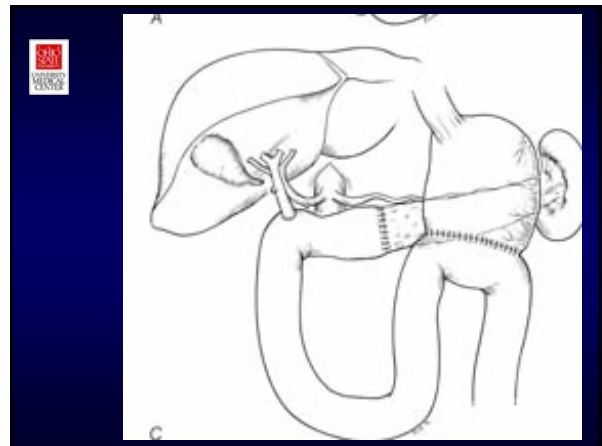
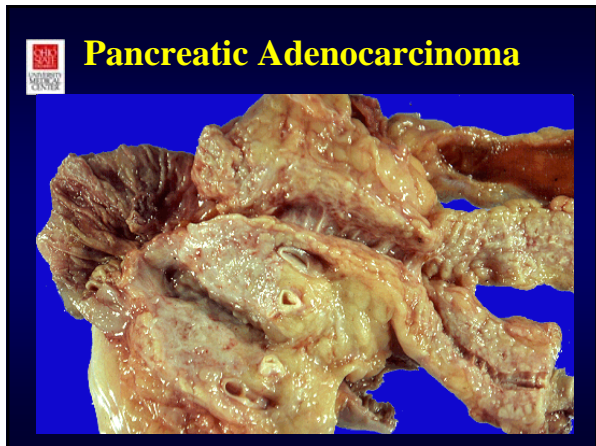


- CT Criteria for resection**
- No extrapancreatic disease
 - No Significant Lymphadenopathy
 - Patent portal vein / SMV confluence
 - No extension of low density tumor to SMA / celiac
 - Intact fat plane at base of SMA



- Resections**
- Total
 - Left
 - distal pancreatectomy +/- splenectomy
 - Right
 - Whipple +/- pylorus preservation
 - Head resection
 - Subtotal
 - Enucleation
-

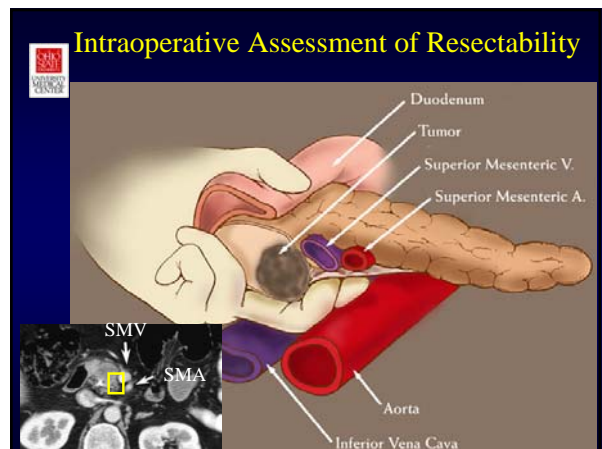
- Surgical Resections**
- Total
 - Rarely planned, incomplete resection
 - Consider morbidity and outcomes
 - Whipple
 - ~1% mortality, good functional outcome
 - Distal
 - MIS approach, well tolerated, unusual for adenoCA



Surgeon's Perspective

- Biopsy/FNA if unresectable or non-operative
- If resectable, resection without tissue diagnosis
- Not typical - FS for diagnosis pancreas
- FS assess resectability / tissue confirmation
- FS margins
- 10% resection for presumed malignancy, benign

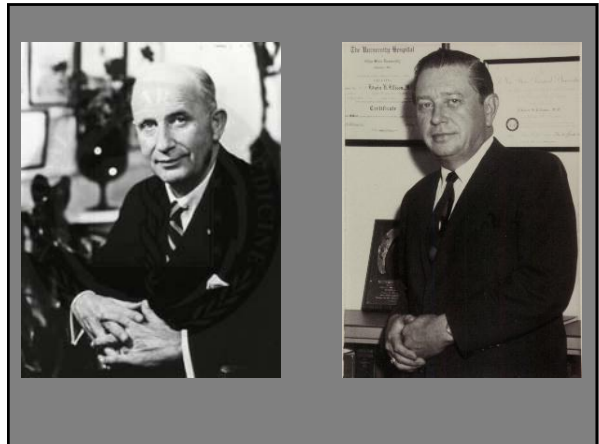
Laparoscopy in pt with normal CT





Assessment of margins

- Bile duct
 - CholangioCA, extend resxn
- Pancreatic Margin
 - Invasive CA, endocrine, ?Total pancrsxn
- Proximal GI Tract
 - Duodenal tumors, rarely important



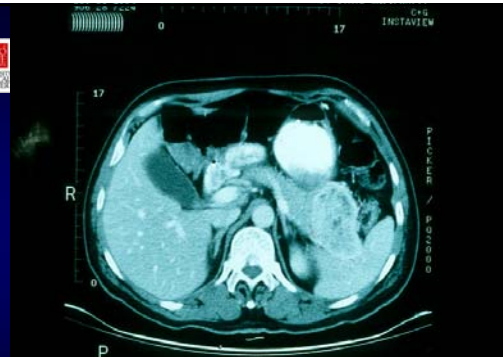
Neuroendocrine Tumors of the Pancreas

- Less common lesions
- Functional or nonfunctional
- Surgical resection indicated for big lesions, liver metastasis and LN
- Goal is to normalize functional endocrine mass, provide long term survival
- Avoid resection in MEN I

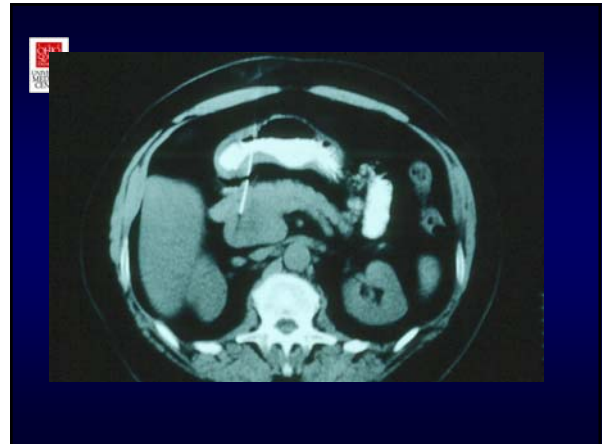


Surgical Cure of Gastrinoma in Patients with the Multiple Endocrine Neoplasia Type 1 Syndrome

Authors (Reference)	Patients (n)	Patients Undergoing Resection (n)	Patients Cured (n)	Patients Cured (%)
Mohr et al., (48)	19	17	15	5.3
Falley et al., (91)	15	15	0	0
Shoppard et al., 1989	7	7	0	0
Thompson (36)	10	6	6	60
Thompson et al., 1983	11	11	0	0
Total	62	56	7	11.3



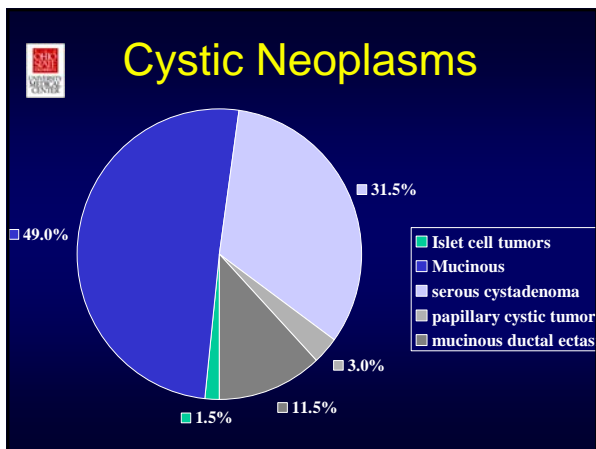
Islet Cell Tumor of the Tail



Not all "tumors" need resection
Unusual lesions may benefit from biopsy
Metastatic lesions
Lymphoma
Infections
Granulomatous disease
Inflammatory

Pancreatic Cystic Masses: pseudo- vs. neoplasm

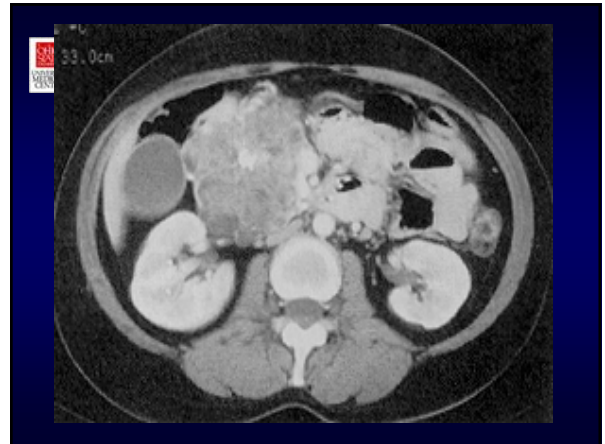
- History
- Radiologic criteria
- ERCP communication with duct
- Aspiration? Endoscopic drainage?
- Surgical Procedure: resect vs drainage
- Histology; Tell me now!
- Or: did I do the right operation?





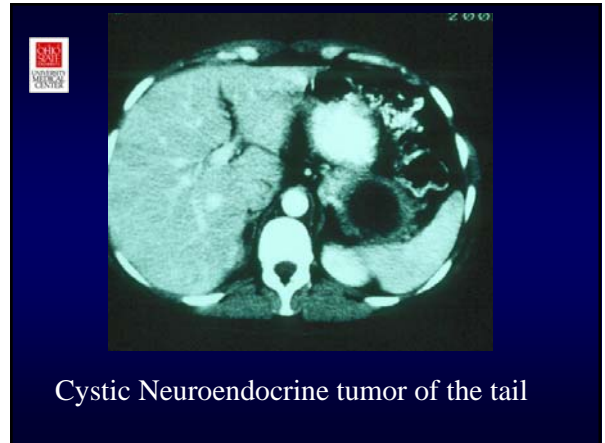
Serous Cystadenoma

- Benign , yet mass effect, ? Malignant
- other disorders
- Treatment: resection or observation
- Diagnosis is not certain
- Risk of resection versus risk of incorrect diagnosis or mass effect
- !Resect if possible



Mucinous Cystadenoma

- Suggested Radiographically
- Resect with margins
- Resect metastases
- Excellent prognosis with resection
 - 5yr survival >95%
 - long term approx. 50-75%
- Poor Prognosis with unresectable lesion



Conclusions

- Diagnosis of solid or cystic lesions of the pancreas remain complex
- Best treatment requires multidisciplinary team
- Complete preop evaluation may avoid surgery
- Only chance of long term survival is early resection of pancreatic tumors
- The pathologists gives the only definitive Dx.



