COLLECTING CANCER DATA: PANCREAS

Q&A

- Please submit all questions concerning webinar content through the Q&A panel.
- Reminder:
  - If you have participants watching this webinar at your site, please collect their names and emails.
  - We will be distributing a Q&A document in about one week. This document will fully answer questions asked during the webinar and will contain any corrections that we may discover after the webinar.

Fabulous Prizes
AGENDA

• Overview
• Anatomy
• Histology
• Epi Moment
• Quiz 1
• Staging
• Treatment
• Quiz 2
• Case Scenarios

OVERVIEW
ANATOMY AND FUNCTION
**ROLES OF THE PANCREAS**

- **Exocrine**
  - Aids in digestion
  - Secretion of enzymes

- **Endocrine**
  - Blood sugar control & metabolism
  - Secretion of insulin & other hormones

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**EXOCRINE FUNCTION OF THE PANCREAS**

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ENDOCRINE FUNCTION OF THE PANCREAS
• Blood Sugar Regulation & Metabolism

REGIONAL LYMPH NODES
• Superior mesenteric
• Anterior and posterior pancreaticoduodenal
• Pyloric
• Proximal mesenteric
• Common bile duct lymph nodes
• Splenic hilar, pancreatic tail, peri-pancreatic, hepatic artery, retroperitoneal, lateral aortic
• Head only
  • Infrapyloric, subpyloric, celiac
• Body & Tail only
  • pancreatocolic, splenic

DISTANT METASTASIS
• Liver
• Peritoneal Cavity
• Lungs
IMPORTANT REMINDER
Please check the 2018 ICD-O-3 Update Table first to determine if the histology is listed. If the histology is not included in the update, then review the ICD-O-3 and/or Hematopoietic and Lymphoid Database and/or Solid Tumor (MP/H) rules.

NEW HISTOLOGIES WITH PANCREAS
New Term (C25_)
• 8453/3 Intraductal papillary mucinous neoplasm (IPMN) with an associated invasive carcinoma
• 8453/2 Intraductal papillary mucinous neoplasm with high grade dysplasia
• 8503/2 Intraductal tubulopapillary neoplasm
• 8470/3 Mucinous cystic tumor with associated invasive carcinoma
EXAMPLE

• Final Diagnosis: biopsy, body of pancreas, mixed acinar ductal carcinoma

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<th>2018 Histology</th>
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<tr>
<td>New</td>
<td>8552/3</td>
<td>Mixed acinar ductal carcinoma</td>
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POP QUIZ

• Final Diagnosis: Ductal carcinoma of the pancreas

<table>
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<th>Primary Site</th>
<th>2018 Histology</th>
<th>2017 Histology</th>
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<tr>
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QUESTIONS?
DESCRIPTIVE EPIDEMIOLOGY

- Analyzed alone; tobacco-associated (C25.1)
- Incidence 10th
  - 14.5 per 100,000 men; ↑ 1%
  - 11.2 women; ↑ 1.1%
  - 17.0 black men; ↑ 4%
  - 14.6 black women; ↑ 0.8%
- Mortality 4th:
  - 12.6 per 100,000 men; ↑ 0.2%
  - 9.5 women; ↑ 0.2%
  - 14.8 black men; ↑ 0.3%
  - 12.2 black women; ↑ 0.2%
- I/M Ratio >1.0

INCIDENCE & MORTALITY: US
ETIOLOGY/RISK FACTORS

• Most cases are sporadic
• KRAS mutation =85-95%
• Heredity: 2+ family (8x), BRCA2 (3.5x), PKS1, STK11, CBLX2A, CTFR, MLH1, APC
• Chronic pancreatitis, smoking (2x), obesity (2x)
• Diabetes: Diabetes dx often temporally close (reverse causation)
• Occupational chemical exposures
• Infectious (H pylori, HBV)?
• NO RISK: alcohol, coffee or radiation

HISTOLOGY

• Exocrine
  • Ductal adenocarcinoma
    • >90% of all pancreatic cancers
    • 75% in head of pancreas
    • Cystic <1%
  • Endocrine
    • Islet-cell/neuroendocrine are rare

PROGRESSION: PanIN TO INVASIVE DUCTAL ADENOCARCINOMA
SCREENING

Population-based  
none
High-risk  
Experimental
Mutations (Kras, p53, p16)
Protein patterns
Blood marker (CA19-9—but generally as guide for disease progression)
MIRNA

SIGNS & SYMPTOMS

Average age at dx: 71
Generally asymptomatic until late stage
Jaundice
Abdominal pain and/or lower back pain
Rapid weight loss
Bloating
Loss of appetite and/or nausea
Discolored stool
Dermatitis
Diabetes

TESTS

PE: palpable mass
CT, Ultrasound
MRCP: magnetic resonance cholangiopancreatography
ERCP: endoscopic retrograde cholangiopancreatography
Blood tests: amylase & lipase
Biopsy: surgical or needle
PATRICK SWAYZE VERSUS STEVE JOBS

- Disease of same name but not the same
- Jobs—neuroendocrine/islet cell
  - Rarer, slower growing, easier to treat
  - 8 years; age 56; non-smoking vegan
- Swayze—ductal adenocarcinoma
  - Median survival 5 months
  - 20 months; age 57; active but smoker
  - Gemcitabine

SUMMARY STAGE
PANCREAS
SUMMARY STAGE 2000

Pancreas: head, body, and tail
- C25.0 Head of pancreas
- C25.1 Body of pancreas
- C25.2 Tail of pancreas
- C25.3 Pancreatic duct
- C25.4 Islets of Langerhans

Pancreas: other and unspecified
- C25.7 Other and unspecified parts of pancreas (neck)
- C25.8 Overlapping lesion of pancreas
- C25.9 Pancreas, NOS


SUMMARY STAGE 2018

- Pancreas (including NET Pancreas)
  - C250 Head of pancreas
  - C251 Body of pancreas
  - C252 Tail of pancreas
  - C253 Pancreatic duct
  - C254 Islets of Langerhans
  - C257 Other specified parts of pancreas
  - C258 Overlapping lesion of pancreas
  - C259 Pancreas, NOS

https://staging.seer.cancer.gov/eod_public/list/1.0/

POP QUIZ

- Ultrasound: 6 cm mass located in the tail of the pancreas. The tumor directly invades the spleen with adenopathy of splenic nodes, most likely malignant. No liver metastasis.
- Biopsy of pancreatic tail mass: Adenocarcinoma

- Summary Stage 2000
- Summary Stage 2018
AJCC STAGING
CHAPTER 28: EXOCRINE PANCREAS
CHAPTER 34: NEUROENDOCRINE TUMORS OF THE PANCREAS

AJCC 8TH EDITION ERRATA
• Chapter 28-Exocrine Pancreas
  • No Errata
• Chapter 34-Neuroendocrine Tumors of the Pancreas
  • T3: Tumor limited to the pancreas,* >4 cm; or tumor invading the duodenum or common bile duct

SITE/HISTOLOGIES ELIGIBLE FOR STAGING
• A site and histology combination must be assigned a Disease Number (AJCC ID) to be assigned an AJCC Stage.

https://cancerstaging.org/references-tools/deskreferences/Pages/8EUpdates.aspx
POP QUIZ

• A registrar is abstracting a 2018 pancreas primary. She has entered primary site code of C25.0 and the histology is 8070/3.
• When she gets to the TNM Fields she gets a message that the case is not eligible for an AJCC Stage.
  • Is this correct?
  • What if the physician assigned an AJCC Stage?

CHAPTER 28 EXOCRINE PANCREAS

SUMMARY OF CHANGES
• Reclassification of the T values
• Reclassification of the N values
NEUROENDOCRINE CARCINOMA

- Chapter 34
  - Neuroendocrine Tumor, well differentiated (8240/3)
  - Neuroendocrine Tumor, moderately differentiated (8249/3)
- Chapter 28
  - Neuroendocrine Tumor, NOS (8246/3)
  - Neuroendocrine Tumor, poorly differentiated (8246/3)

RULES FOR CLASSIFICATION

- General Rules
- Clinical
  - Must have a diagnosis of cancer
  - Must have some kind of work-up
- Pathological
  - Resection of the primary tumor or
  - Pathologic confirmation of distant mets

CLINICAL WORK-UP

- Imaging
- Endoscopic ultrasound and fine needle aspiration
- Staging laparoscopy
- ERCP
POP QUIZ
• Imaging shows a 3.2cm malignant appearing tumor in the body of pancreas.
• The tumor encases the superior mesenteric artery.
• No enlarged lymph nodes or metastasis identified.
• An exploratory laparotomy showed metastatic nodules on the surface of the liver.
• A biopsy of a metastatic nodule showed metastatic ductal carcinoma.

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<tbody>
<tr>
<td>Clinical T</td>
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<td>Clinical N</td>
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<tr>
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PREOPERATIVE NEOADJUVANT TREATMENT
• Borderline resectable
• Resectable

PATHOLOGIC STAGING
• Resection of the primary tumor and regional nodes required if patient does not have pathologic confirmation of distant mets.
ASSIGNING VALUES

- **T value**
  - Non-invasive
  - Invasive tumor: based on tumor size
- **N value** is based on number of positive lymph nodes
- **M value** is absence or presence of distant mets
- **Stage group** is based on T,N, and M only

POP QUIZ

- Imaging shows a 1.7 cm tumor in the tail of pancreas.
- The tumor abuts the superior mesenteric artery. There is less than 180° of involvement. No additional arterial or celiac axis involvement.
- No enlarged lymph nodes or metastasis identified.
- An EUS-FNA confirms poorly differentiated acinar carcinoma
- The patient is treated with neoadjuvant chemoradiation.

POP QUIZ

- The patient went on to have a distal pancreatectomy.
- Pathology did not show any residual tumor.
- 17 lymph nodes were resected. No malignancy was identified.
SITE SPECIFIC DATA ITEMS/GRADE

- No SSDI's related to pancreas
- Standard Grade data items

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<tr>
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<th>Description</th>
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<td>G1: Well differentiated</td>
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<tr>
<td>2</td>
<td>G2: Moderately differentiated</td>
</tr>
<tr>
<td>3</td>
<td>G3: Poorly differentiated</td>
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GRADE

- A patient is found to have a tumor in the pancreas.
- A biopsy confirms poorly differentiated mucinous carcinoma.
- The patient had neoadjuvant treatment followed by a whipple procedure.
- Pathology shows a moderately differentiated mucinous carcinoma.

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<td>Pathological Grade</td>
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<td>Post-therapy Grade</td>
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QUESTIONS?
CHAPTER 34: NEUROENDOCRINE TUMORS OF THE PANCREAS

PAGE 407

SUMMARY OF CHANGES

• New Chapter (previously included with exocrine/endocrine chapters)
• No Tis
• Subdivision of the M category

RULES FOR CLASSIFICATION

• General Rules
• Clinical
• Must have a diagnosis of cancer
• Must have some kind of work-up
• Pathological
• Resection of the primary tumor or
• Pathologic confirmation of distant mets
CLINICAL WORK-UP
- Imaging
- Endoscopic ultrasound and fine needle aspiration
- Staging laparoscopy
- ERCP

PATHOLOGIC STAGING
- Resection of the primary tumor and regional nodes required if patient does not have pathologic confirmation of distant mets.

ASSIGNING VALUES
- T value
  - Tumor size
  - Invasion of duodenum or common bile duct
  - Invasion of adjacent organs or vessels
- N value is based on number of positive lymph nodes
- M value is absence or presence of distant mets and where metastasis occurs
- Stage group is based on T,N, and M only
POP QUIZ

- A patient had a CT that showed a 6.5cm tumor in the tail of the pancreas that invaded into the duodenum. Several hypervascular lesions suspicious for metastasis were seen in the liver.
- An EUS-FNA of the pancreatic tumor revealed a well differentiated neuroendocrine carcinoma.

Data Item 8th ed

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<tr>
<td>Stage</td>
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POP QUIZ (cont)

- The surgeon performed a distal pancreatectomy with splenectomy combined with left lateral hepatectomy and intraoperative radiofrequency ablation of 2 tumors in the right lobe.
- Pathologic analysis confirmed metastatic well differentiated pancreatic NET with 2 mitoses per 10 high-powered fields.
- Tumor size: 6.5cm
- Extension: There was invasion into, but not through the duodenum wall.
- 4 of 22 common hepatic lymph nodes were positive for metastasis.

Data Item 8th ed

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SITE SPECIFIC DATA ITEMS/GRADE

- Grade

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<tr>
<td>1</td>
<td>G1: Mitotic count (per 10 HPF) less than 2 AND Ki-67 index (%) less than 3</td>
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<tr>
<td>2</td>
<td>G2: Mitotic count (per 10 HPF) equal 2-20 OR Ki-67 index (%) equal 3-20</td>
</tr>
<tr>
<td>3</td>
<td>G3: Mitotic count (per 10 HPF) greater than 20 OR Ki-67 index (%) greater than 20</td>
</tr>
<tr>
<td>A</td>
<td>Well differentiated</td>
</tr>
<tr>
<td>B</td>
<td>Moderately differentiated</td>
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<tr>
<td>C</td>
<td>Poorly differentiated</td>
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<tr>
<td>D</td>
<td>Undifferentiated, anaplastic</td>
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POP QUIZ

- An EUS-FNA of the pancreatic tumor revealed a well differentiated neuroendocrine carcinoma.
- Pathologic analysis confirmed metastatic well-differentiated pancreatic NET with 2 mitoses per 10 high-powered fields. Ki-67 was 14%

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QUESTIONS?

Fabulous Prizes Winners
CE CERTIFICATE QUIZ/SURVEY

• Phrase
• Link
  https://www.surveygizmo.com/s3/4288842/Pancreas-2018

JIM HOFFERKAMP  jhofferkamp@naaccr.org
RECIINDA SHERMAN  rsherman@naaccr.org