Neoplasma of Exocine pancreas

By:Dr.Shahryar Hashemzadeh

-Epidemiology and Risk factors

*5th leading cause of death in USA

* Exact cause unknown

Etiology

* Enviromental factors

* Genetic factors

-smoking (twofold)
-coffee and Alcohol (data inconsistent)
-Diet (high in fat and low in fiber, fruits and vegetables)
-Diabetes (pre – existing type II, new onset of diabetes)
-chronic pancreatitis (20-fold)
-k- ras oncogene (90% tumors have a mutation)
-HER 2/neu Oncogene (overe expression)
-P_{53} P_{16}, DPC_4 (smad 4), $BRCA_2$
-Hereditary %10
-FAP
-Peutz- Jeghers
-Aberrations in expression of GF
-GI hormones

Pathology

-Ductal pancreatic adenocarcinoma

-stepwise progression of cellular change just as colon cancer (polyp→cancer)

-Head of pancreas %75 , Body %15, Tail %10

-Adenosquamous carcinoma

- Acinar cell carcinoma

Diagnosis and staging

T_1: Limited to pancreas <2cm

T_2: Limited to pancreas >2cm

T_3: Extensio into duodenum or bile duct

T_4: Extensio into portal vein,SMV,SMA,stomach, Spleen – colon

No: no nodal metastasis

N_1: Regional nodal metastasis

M_0: no distant metastasis

M_1: Distant metastasis

	T	N	M
State I	1,2	0	0
Stage II	3	0	0
Stage III	1,2,3	1	0
Stage IV_A	4	Any	0
Stage IV_B	Any	Any	1

-Localized disease %16.6
-weight loss
-pain (vague)
-painless Jaundice
-palpable gallbladder
Hyperbilirubinemia (directs)
-ALP
-PT
-CA 19-9

* %75 pancreatic cancer

* %15 benign disease of pancreas, liver, bileduct,still no effective screening test

-Dynamic contrast –enhanced spiral CT scan (choice) %90-95 occuracy for unresectable

unresctability

- hepatic and SMA invasion

-enlarged lymph node outside of boundaries of resection

-Ascites

-Distant metastases

-Distant organ invasion

-Ctscan Less accurt in predicting resectable disease

-MRI

-EUS: detect small pancreatic mass missed by CTScan, SMA invasion

-Tissue diagnosis not requir

-After all of the current staging modalities, accuracy of resectability %80

-Laparascopy

*Tumors of body and tail

* Unequivocal finding (Metastasis , Ascites on CT)

*Large tumor

- CA_{19-9}

Treatment

-Palliative surgery and Endoscopry

-Palliative chemotherapy and Radiation

-Surgical Resection (pancreaticoduodenectomy)

Advanced pancreatic cancer

-three clinical problems

-require palliation

*pain

*jaundice

*duodenal obstruction

-pain control

*oral narcotics

*celiac plexus nerve block
- Intro-operatively
- Percutaneou (Alcohol %50)

Jaundice: pruritus , cholangitis , coagulopathy, digestive symptoms, hepatocellular failure, coagulopathy

Biliary bypass:

*HepaticoJejeunostomy

*cholecystojejenostomy

*choledochoduodenostomy

Endoscopic stent

* Plastic } durability

*metallic } cholangitis

Palliative chemotherapy

***Gemcitabine : result symptomatic improvement of pain, weight gain, preformance status**

-Experimental trials: survival improve 1-2 months

- surgical resection : Pancreatico doudenectomy, whipple

-Expert surgeon

Biopsy for tissue diagnosis

- Metastatic tumors
- suggestive
* Pancreatic lymphoma
* Islet cell carcinoma

Neoplasms of the Endocrine pancreas .

-Endocrine of Islet cell

-uncommon (5/million papulation)

- origin:Neural Crest Cells

-MEN

-Functional

-non functional

- malignancy determined by : * local invasion

*lymph node or liver

* metastasis

-most → Malignant

-Initial diagnostic test → Dynamic abdominal CT_{Scan}

-Localization

*Euz

*Octerotide scan

Insulinoma : most common endocrine neoplasma

Whipple's Triad

- **symptomatic fasting hypoglycemia**
- **serum glucose below 50mg/dl**
- **Relief of symptoms with glucose administration**

Clinical manifestation

- syncopal episodes
- palpitation
-Trembling
-diaphoresis
-confusion or obtundation
-seizure
-personality change

Diagnosis

-Monitor fasting every 4-6 hour

- C peptide level

-Eus : diagnostic in 90%

-Visceral angiography with venous sampling

Distributed throughout

-90% benign and solitary

-10% Maligant

Treatment

- **Simple enucleation**
- **distal pancreatectomy**
- **pancraticodoudenectomy**
- **Intraoperative US**

90% sporadic

10% associated with MEN_1(Multifocal ↑ rate of recurrence)

Gastrinoma(ZES)

- Acid hypersecretion~Peptic Ulceration

***Abdominal pain**

***Peptic ulcer disease**

***Severe Esophagitis**

***Diarrhea(20%)**

Ulcer

-Solitary or Multiple

-Atypical location

-Fail to response to Antacids

Diagnosis

-Serum gasterin above 1000pg/ml

-Secretin Test

Cause of hypergasterinoma

-Pernicious anemia

-Proton pump inhibitors

-renal failure

-G-cell hyperplasia

-atrophic gastritis

-retained antrum

-Goo

Location

-70-90% in Passaros triangle

-Doudenal wall

***Imaging**

.Whole body scan

.CTscan

.EUS

-Rule out MEN1

*Serum Calcium Level Checking

-50% Malignant

-Metastases

.Lymph node

.Liver

Treatment

-Enucleation

-Pancreatic resection

-Doudenal wall full-thickness excision

-highly selective vagotomy (unresectable)

-Chemotherapy(inoperable disease)

Vipoma(Verner Morisson)

-Watery diarrhea

-Dehydration

-Weakness

****Location**

.Body

.Tail

Imaging

-CTscan

-EUS

Treatment

-Electrolyte and fluid balance

-Somatostatin analogs

-Palliative debulking

-Hepatic artery embolization

Glucagonoma

-Diabetes

-Dermatitis(necrolytic migratory Erythema)

-Hypoaminoacidemia

***Diagnosis**

.Serum glucagon level above 500pg/ml

***Location**

.Body and Tail

Treatment

-Diabetes control

-Parentral nutrition

-Octerotide

-Debulking

Somatostatinoma

-Gallstone

-Diabetes

-Steatorrhea

**Location

.Proximal Pancrease 60%

Presentation

- **Abdominal pain 25%**
- **Jaundice 25%**
- **Cholelithiasis 19%**

Diagnosis

-Serum somatostatin level above 10pg/ml

-Treatment

.Complete resection

.Cholecystectomy