

PAIN AND SIDE EFFECT MANAGEMENT

UNDERSTANDING PANCREATIC CANCER

Lisa Stearns, MD
Center for Pain and Supportive Care
Phoenix, Arizona



CENTER FOR PAIN AND SUPPORTIVE CARE



CPSC LOBBY



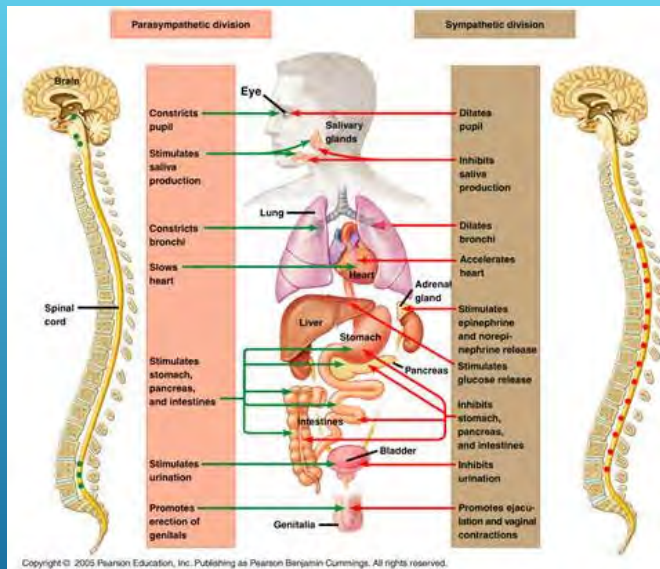
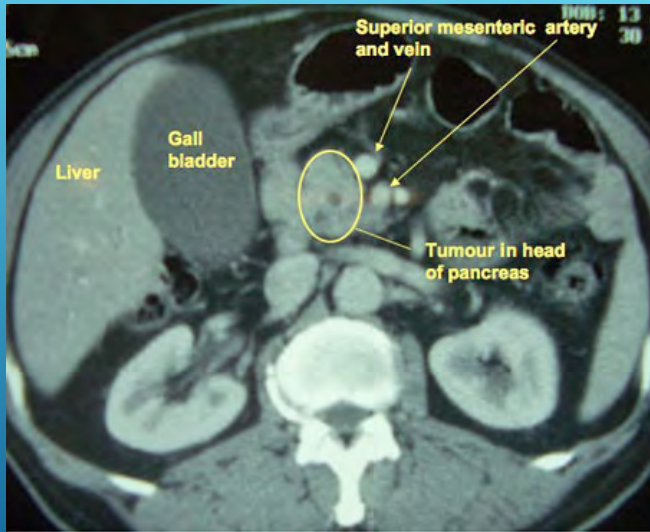
EXAM ROOM AT CPSC



YOGA AT CPSC

- ▶ Symptoms are variable and vague
 - ▶ Nausea with or without vomiting
 - ▶ Decreased appetite
 - ▶ Feels like ulcer, heart burn
 - ▶ Constipation
 - ▶ Bloating
 - ▶ Belching and Flatulence
 - ▶ Weight loss
 - ▶ Fatigue, lethargy

WHY IS PANCREATIC CANCER SO HARD TO DIAGNOSIS?



INNERVATION: CELIAC PLEXUS

- ▶ The first Nervous system: sea cucumbers and millipedes have very primitive nerves like this system
- ▶ Fight or flight.....If you were a cave man being chased by a Saber Tooth Cat.....
 - ▶ Blood shunts to your brain and muscles
 - ▶ GI tract stops
 - ▶ You wouldn't want to have to poop while you are running for your life
 - ▶ Bladder contraction is weak

SYMPATHETIC NERVOUS SYSTEM

- ▶ Pancreatic mass

SO HOW DOES CAVE MAN
EVOLUTION EFFECT ME?

- ▶ Pain – ‘the knife’
- ▶ Early satiety and bloating
- ▶ Nausea, with or without vomiting
- ▶ Increased GI gas
- ▶ Constipation
- ▶ Diarrhea
- ▶ Insomnia
- ▶ Malaise and Fatigue

SIDE EFFECTS

- ▶ Location:
 - ▶ Abdominal pain radiating through or around to the back
 - ▶ Back pain radiating through or around to the front underneath the ribs
- ▶ Character:
 - ▶ Knife-like
 - ▶ Searing, twisting
- ▶ Pain Medications:
 - ▶ Help the pain but make the symptoms worse
 - ▶ Rarely make the pain go away
- ▶ Collateral Damage
 - ▶ Increased adrenaline production increases anxiety and causes panic attacks as well as worsening pain and nausea and vomiting

PAIN

- ▶ Location:
 - ▶ Stomach
- ▶ Character:
 - ▶ Hungry but can only eat a few bites
- ▶ Mechanism:
 - ▶ Delayed gastric emptying
 - ▶ Pain with eating
- ▶ Treatment:
 - ▶ Small, frequent meals
 - ▶ Laxatives to stimulate evacuation
 - ▶ Pain medication, opiates or benodiazapines
- ▶ Collateral Damage:
 - ▶ Weight loss
 - ▶ Nausea with vomiting
 - ▶ Malnutrition

EARLY SATIETY AND BLOATING

- ▶ Mechanism:
 - ▶ Due to poor motility of the stomach and bowel
 - ▶ Increased norepinephrine results in nausea
 - ▶ Mass effect may cause temporary or long-term small bowel obstruction
- ▶ Treatment:
 - ▶ Minimize medications which effect gut function
 - ▶ Pro-motility agents, such as metoclopramide or magnesium, laxatives
 - ▶ Anti-emetics: Ondansetron, or thiazide derivatives
 - ▶ If reflux with nausea, acid reducer for comfort

NAUSEA, WITH OR WITHOUT VOMITING

- ▶ Mechanism
 - ▶ Secondary to poor gut motility and air swallowing
- ▶ Treatment
 - ▶ Avoid chewing gum, carbonated beverages, and drinking through straws
 - ▶ Simethicone: 320 mg three times daily
 - ▶ Avoid milk products if diarrhea cycles are frequent or if lactose intolerant
 - ▶ Laxatives, if constipated to decrease gut transit time and promote forward propulsion
 - ▶ Increase ambulation to be able to expel gas and minimize bloating

INCREASED GI GAS

- ▶ Mechanism:
 - ▶ Poor gut motility from norepinephrine
- ▶ Treatment
 - ▶ Stool softeners and laxatives
- ▶ Collateral Damage
 - ▶ Increased gas and worsening nausea and vomiting if untreated

CONSTIPATION

- ▶ Mechanism:
 - ▶ Fluctuating levels of norepinephrine with ingestion of food
 - ▶ May act like dumping syndrome
- ▶ Treatment:
 - ▶ Small, frequent meals
 - ▶ Low glycemic index meals
 - ▶ Sometimes laxatives help because a bolus of food is like wet cement and the bowel will secrete fluid to try to make it pass
 - ▶ ? IBS medications, such as Amitiza
- ▶ Collateral Damage:
 - ▶ Increased abdominal pain and distribution out of the upper abdomen to the whole abdomen

DIARRHEA

- ▶ Mechanism:
 - ▶ Increased norepinephrine
 - ▶ CANCER
 - ▶ Brain will not shut off
- ▶ Treatment:
 - ▶ Benzodiazepines are bad long-term
 - ▶ Tricyclic antidepressants help pain, appetite, and promote sleep
 - ▶ Muscle relaxants: tizanidine works as an anti-adrenaline in the spinal cord and makes you tired
 - ▶ Anti-psychotics: if your brain will not shut off, ok for short-term use, challenging if you have secondary diabetes
- ▶ Collateral Damage:
 - ▶ Increased anxiety
 - ▶ Pain

INSOMNIA

- ▶ Mechanism:
 - ▶ Malnutrition with muscle wasting
 - ▶ Insomnia
 - ▶ Hypogonadism
- ▶ Treatment:
 - ▶ Exercise: 30 minutes daily
 - ▶ Increase caloric and protein intake
 - ▶ Improve sleep pattern
 - ▶ Restorative exercise such as yoga, Thai chi, or qi chong
- ▶ Collateral Damage:
 - ▶ Further physical deterioration

MALaise AND FATIGUE

- ▶ Pain:
 - ▶ Opioids in small doses, tricyclic antidepressants, SSRI antidepressants such as citalopram for anxiety
 - ▶ If opiates compromise bowel function, mental status, or appetite, consider celiac plexus neurolysis or spinal delivery of medications
- ▶ Appetite, Early Satiety, Nausea and Vomiting
 - ▶ Small, frequent meals, frequent bowel movements, and control gas bloating
 - ▶ Anti-emetics to prevent vomiting
- ▶ Constipation
 - ▶ Small, frequent meals
 - ▶ Stool softeners and laxatives
- ▶ Insomnia, Malaise and Fatigue
 - ▶ Regular daily exercise
 - ▶ Relaxation techniques to increase parasympathetic tone and healthy sleep hygiene
- ▶ Symptoms can be controlled and managed, very difficult to abolish

PANCREATIC PACKAGE TREATMENT

QUESTIONS?

Lisa Stearns, MD

480-889-0180

www.azcpsc.com