NR 511 MIDTERM NEWEST ACTUAL 2024 EXAM WITH 320 GRADED ANSWERS DIFFEENTIAL DIAGNOSIS & PRIMARY CARE PRACTICUM CHAMBERLAIN

Describe acute pancreatitis in one sentence...
- Acute pancreatitis is the sudden inflammation and hemorrhaging of the pancreas due to destruction by its own digestive enzymes, also called auto digestion.

What are the main endocrine functions of the pancreas?
- Alpha and beta cells secret hormones into the bloodstream, namely glucagon and insulin, respectively.

What are the endocrine functions fo the pancreas?
- Acinar cells secrete digestive enzymes which are secreted into the duodenum which help break down carbohydrates, lipids, and proteins.

What happens to the pancreas as a whole after the inflammatory response and proteases ravaging the tissues?
- This causes blood vessels to leak and rupture causing edema which results in the swelling of the capsule of the pancreas.

What happens when lipases are activated in the pancreas as a result of the inflammatory process?
- They can destroy the fat surrounding the pancreas known as the peripancreatic fat.

How is a pancreatic pseudocyst distinguished from a pancreatic abscess since they present similarly in symptoms and imaging?
- 1. High fever and WBC count since it is an infection

What secondary complication results from damaged blood vessels as a result of acute pancreatitis?
- Hemorrhage --> hypovolemic shock

How does acute pancreatitis affect the body's ability to clot?

- It affects the systemic activation of coagulation factors which may result in disseminated intravascular coagulation (DIC).

How does acute pancreatitis affect the body's respiratory system?

- May lead to acute respiratory distress syndrome (ARDS) where massive pancreatic inflammation leads to leaky blood vessels throughout the body making it harder to breath. #1 killer in patients with acute pancreatitis.

How does the pancreas protect itself from its own enzymes?

- By producing inactive forms of enzymes called proenzymes, known more specifically as zymogens. These zymogens are activated by proteases.

Where is zymogen stored to keep it away from sensitive tissues?

- In vesicles called zymogen granules. These are stored with protease inhibitors to prevent accidental activating for the zymogen.

How are zymogens used to digest food?
- They are secreted into the pancreatic duct and enter the duodenum where they are activated by the protease trypsin.

What is trypsinogen? How, when, and to what is it converted?
- Trypsinogen is a zymogen made by the pancreas. It is activated by enteropepidase which is produced in the duodenum. The active form of the enzyme is called trypsin.

What is the results of trypsinogen and other zymogens becoming active prematurely?
- Acute Pancreatitis

Acute pancreatitis may be a result from what two physical circumstances?
- 1. Injury to the acinar cells
2. Impaired secretion of proenzymes

What are the leading causes of impaired secretion of proenzymes from the pancreas?
- 1. Alcohol abuse
2. Gallstones