



Pancreatitis

Definition

Pancreatitis is pain caused by inflammation of the pancreas. Acute pancreatitis is associated with acute tissue destruction in the pancreas. Chronic pancreatitis is persistent damage of pancreatic tissue and impairment of pancreatic function and is associated with fibrosis. Symptom flares are common, with intensification of symptoms for hours, days, or weeks; common triggers include consumption of alcohol or fatty foods.

Pathophysiology

Acute pancreatitis has three phases: (1) premature activation of trypsin within the pancreas, (2) intrapancreatic inflammation, and (3) extrapancreatic inflammatory processes. Recurrent bouts of pancreatitis result in fibrosis and chronic pancreatitis. Apart from the risk of dehydration and malnutrition, chronic pancreatitis is not typically life-threatening.

Theories related to pain generation include ductal obstruction, fibrotic encasement of the pancreas, and complex neuropathic-inflammatory interactions. Etiologies include alcohol abuse, hyperlipidemia, gallstones or congenital pancreatic abnormalities, hereditary factors, autoimmune disease, and hyperparathyroidism. Between 10% and 30% of cases are idiopathic. Complications include diabetes mellitus, pseudocysts, pancreatic fistulae, obstruction of biliary or gastrointestinal portal systems, and malabsorption.

Diagnosis

Diagnosis is based on a careful history, physical examination, and laboratory tests, including amylase/lipase. Pain is typically localized to the abdomen, the epigastric area, and the back. Nausea and vomiting are often more problematic than pain. Weight loss, steatorrhea, and malabsorption are common. Calcification of the pancreas may be visible on abdominal radiographs. Endoscopic procedures with retrograde cholangiopancreatography or ultrasound are useful.

Management Options

Most episodes of pancreatitis are mild and resolve themselves with fluid and electrolyte replacement, food restriction, and abstinence from alcohol and other triggering events. With evidence of significant pancreatic necrosis (high amylase/lipase), infection, and/or other systemic metabolic processes, acute pancreatitis may be a life-threatening condition requiring aggressive surgical and medical intervention. Pancreatic enzymes are needed for exocrine insufficiency. Ductal decompressive therapy is commonly performed with surgery or use of stents. Opioids are commonly administered, with caution if the patient has a history of substance abuse. There is a potential role for antioxidants, gabapentinoids, anesthetic block (celiac plexus or splanchnic nerves), endoscopic procedures, biliary stents, or surgical excision.

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