

CHRONIC PANCREATITIS – A FREQUENTLY MISUNDERSTOOD DISEASE

By Michele D. Bishop, MD

A 45- year old businessman is found to have calcifications of the pancreas on an abdominal CT scan after complaining of diarrhea and weight loss. A 30- year old housewife is now seeing her eighth physician for abdominal pain that started in her teens. A 70-year old man is found incidentally to have a mass in the head of his pancreas during a CT scan and is told by the surgeon after resection that it was benign scar tissue. These are examples of presentations of the same illness – chronic pancreatitis. The disease is poorly understood by most gastroenterologists, much less other physicians and the general public. Terms are used interchangeably, such as recurrent pancreatitis, flare of chronic pancreatitis, acute pancreatitis, and pancreatic insufficiency.

Let's start with terminology. *Acute pancreatitis* is the sudden onset of inflammation and tissue destruction of the pancreas that may even involve other organ systems. The pancreas usually heals over time, and the damage is not permanent. More than one attack is termed *recurrent acute pancreatitis*, between which the pancreas returns to a relatively normal state. *Chronic pancreatitis* involves long-term inflammation and scarring of the pancreas that is irreversible. Pancreatic enzyme levels in the blood (amylase and lipase) are usually very high during acute pancreatitis, but may be only mildly elevated or even within normal limits with chronic pancreatitis. Pain is one of the diagnostic features of acute pancreatitis, but may be absent in chronic pancreatitis. However, some patients have severe abdominal pain with chronic pancreatitis either intermittently, after eating fatty foods, or constantly. *Pancreatic insufficiency* is when the pancreas is unable to produce enough digestive enzymes to break down and absorb food in the intestine. This leads to steatorrhea, a type of oily diarrhea associated with chronic pancreatitis and malabsorption. Diabetes may also develop in patients with chronic pancreatitis if the islet cells responsible for making insulin are scarred.

Chronic pancreatitis was first described over 200 years ago, but few significant discoveries about the disease were made prior to the mid 1990's. Historically, it was thought to be related to alcohol consumption in 60-70% of cases, with the remaining 30-40% labeled as "idiopathic" or of unknown cause. In the last six years, however, advanced genetic studies have been reported that finally give insight to possible causes of chronic pancreatitis. We now know that many cases are due to DNA abnormalities in genes, such as CFTR (cystic fibrosis), PRSS1 (cationic trypsinogen) or SPINK1. Research is also underway to better understand how alcohol damages the pancreas, and why such damage leads to chronic pancreatitis in only a small portion of alcoholics.

The diagnosis of chronic pancreatitis may require several tests. The gold standard is an endoscopic retrograde cholangiopancreatography (ERCP), which requires IV sedation

and passage of an endoscope into the duodenum, with contrast injections into the pancreatic and bile ducts seen on x-rays during the procedure. There is a 5-10% chance of causing acute pancreatitis just by doing the test. Other tests may include a CT scan, MRI, or endoscopic ultrasound to look for calcifications or chronic changes of the pancreas. There are also pancreatic function studies, such as a secretin or CCK test, to look for decreased production of bicarbonate or enzymes in the pancreas. It is not uncommon for the symptoms to go undiagnosed for months or even years. Unfortunately, treatment options are limited. Pancreatic enzyme supplements taken with food help in digestion, but treatment of pain is usually targeted at masking the symptoms with pain medications, such as narcotics or nerve blocks. Surgical options have reported pain relief in up to 70% of patients, but require technically difficult procedures that carry some risks.

Overall, chronic pancreatitis can be a devastating illness for patients and family members. The care and advice of a “pancreatologist”, a gastroenterologist or surgeon with expertise in pancreatic diseases, is of utmost importance. Hope lies in continued research of the causes and potential treatments of chronic pancreatitis, and in education and public awareness of the disease.

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