

Pancreatic Cancer

National Pancreas Foundation

Brochure

INTRODUCTION – The Pancreas

The pancreas is an organ that has two important functions in digestion: the production of enzymes to digest food and the production of hormones to control blood sugar. The pancreas is positioned beneath and behind the stomach in a location referred to as the retroperitoneum. It is surrounded by the stomach, small intestine, spleen, and liver. The pancreas has a structural shape similar to a fish with the three main parts being the head, body, and tail.

The pancreas is responsible for producing enzymes to digest food. These enzymes pass through the pancreas into the intestine through a pipe referred to as the pancreatic duct. Without these enzymes, food is not digested and absorbed, leading to malnutrition, weight loss, and diarrhea.

The pancreas makes insulin and glucagon, two important hormones that control blood sugar. Patients who do not make enough insulin develop diabetes mellitus.

There are a variety of disorders of the pancreas including acute pancreatitis, chronic pancreatitis, hereditary pancreatitis, and pancreatic cancer. The evaluation of pancreatic diseases can be difficult due to the inaccessibility of the pancreas. There are multiple methods to evaluate the pancreas. Initial tests of the pancreas include a physical examination, which is difficult since the pancreas is deep in the abdomen near the spine. Blood tests are often helpful in determining whether the pancreas is involved in a specific symptom but may be misleading. The best radiographic tests to evaluate the structure of the pancreas include CAT (computed tomography) scan, endoscopic ultrasound (EUS), and MRI (magnetic resonance imaging). Tests to evaluate the pancreatic ducts include ERCP (endoscopic retrograde cholangiopancreatography) and MRCP (magnetic resonance cholangiopancreatography). There are also instances in which surgical exploration is the only way to confirm the diagnosis of pancreatic disease.

PANCREATIC CANCER

Pancreatic cancer is the fourth most common cause of cancer death in men and the fifth in women. It accounts for more than 37,000 new cases of cancer per year in the United States. This cancer grows insidiously and initially does not cause symptoms. When symptoms do appear, their severity depends on the location and size of the tumor. If the tumor blocks the common bile duct so that bile cannot pass into the intestine, the skin and whites of the eyes may become yellow and the urine may become dark. This condition is called jaundice. Pain often develops in the upper abdomen and sometimes spreads to the back. Cancer of the pancreas can also cause nausea, loss of appetite, depression, weight loss, and weakness. The diagnosis usually includes a history, physiographic imaging techniques, and typically a biopsy (to obtain a tissue sample).

If detected early, pancreatic cancer can be cured in the early stages by surgical resection. Unfortunately, early detection is more the exception than the rule. If possible, the doctor will recommend surgery to remove the tumor. In most instances, a Whipple

operation is performed in which a large part of the pancreas, the duodenum, and a portion of the bile duct are removed.

Often, patients will need to take pancreatic enzyme supplements to prevent fat and protein malabsorption. In later stages, treatment can improve the quality of life by controlling symptoms and complications. In most cases the doctor prescribes medicine to control the pain. If pain medication is not sufficient, the doctor may use other treatments such as injecting alcohol into the area around certain nerves to block the feeling of pain. In addition, radiation therapy can help relieve pain by shrinking the tumor.

In the past, chemotherapy had not been effective in the treatment of pancreatic cancer. Recent research has led to new agents that may help shrink the tumor and improve quality of life.

SUPPORT AND INFORMATIONAL RESOURCES

The National Pancreas Foundation

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