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Pancreatic Cancer: Understanding Symptoms, Causes and Risk Factors

Gargollo Toretsky *

Department of Surgical and Molecular Pathology, National Institute of Oncology, Budapest, Hungary

Commentary

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***For Correspondence**: Gargollo Toretsky, Department of Surgical and Molecular Pathology, National Institute of Oncology, Budapest, Hungary

E-mail: gargollot@georgetown.com

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DESCRIPTION

Pancreatic cancer develops when cells in the pancreas mutate (alter) and multiply uncontrollably, resulting in the formation of a tumour. The pancreas is a gland located in the abdomen (belly), between the spine and the stomach. It produces hormones that regulate blood sugar levels as well as enzymes that aid in digesting.

The majority of pancreatic tumours begin in the pancreatic ducts. The main pancreatic duct (the Wirsung duct) connects the pancreas to the common bile duct.

Imaging tests do not detect early-stage pancreatic cancers. As a result, many people do not receive a cancer diagnosis until it has spread (metastasis). Pancreatic cancer is also resistant to many commonly used cancer medications, making treatment notoriously tough. There are two types of pancreatic tumors:

Exocrine tumours account for more than 90% of all pancreatic tumours. Adenocarcinoma is the most prevalent type of pancreatic cancer, and it develops in the cells that line in organs. Neuroendocrine Tumours (NETs) account for less than 10% of pancreatic tumours. An NET is also known as an islet cell cancer.

Pancreatic cancer accounts for around 3% of all malignancies diagnosed in the United States. It is the tenth most frequent cancer in men and persons born male, and the eighth most common cancer in women and people born female. Pancreatic cancer is becoming more common. According to current trends, pancreatic cancer will be the second leading cause of cancer death in the United States by 2030.

Causes of Pancreatic Cancer

The causes of pancreatic cancer are complicated and multifaceted, and they are still not fully understood. Specific risk factors, such as tobacco use, obesity, a family history of pancreatic cancer, chronic pancreatitis, and specific genetic disorders, have been discovered. Inherited genetic alterations can raise the chance of getting pancreatic cancer in some circumstances.

Risk factors for pancreatic cancer

- Smoking cigarettes, cigars, and other tobacco products.
- Obesity, especially if people are carrying additional weight around waist.
- Diabetes, particularly Type 2 diabetes. Diabetes that appears suddenly could be a symptom of pancreatic cancer.
- Chemical exposure, such as pesticides and petrochemicals.
- Chronic pancreatitis, which is an ongoing inflammation of the pancreas.

Hereditary disorders caused by alterations (mutations) in genes such as the BRCA1 or BRCA2 genes, which are passed down from biological parent to kid. This is because healthcare personnel cannot feel pancreas during standard checkups, and these tumours are difficult to see on routine imaging tests. A blood test for pancreas can reveal tumour markers. A tumour marker is a chemical that can be used to detect cancer.

High levels of Carbohydrate Antigen (CA) 19-9, a type of protein secreted by pancreatic cancer cells, may indicate the presence of a tumour in pancreatic cancer. Laparoscopy is sometimes used by doctors to identify the degree of pancreatic cancer and whether removal is achievable.

A surgeon makes a few small incisions (cuts) in the belly and inserts a long tube with a camera at the end. This enables them to check within abdomen for anomalies. During the same process, they will frequently take a biopsy.

If someone is diagnosed with pancreatic cancer, should explore genetic testing. This can inform having a genetic predisposition to pancreatic cancer. It can also assist healthcare professional in determining which form of treatment is most appropriate for a person.

Some pancreatic cancer patients have mutations in the BRCA1 and BRCA2 genes. Though these genes are known as breast cancer genes, mutations in BRCA1 and BRCA2 can also suggest other types of cancer, such as prostate, ovarian, and pancreatic cancer.

One should seek genetic testing if person is a first-degree family (parent, child, or sibling) of someone with pancreatic cancer. The results will reveal whether person have a BRCA1 or BRCA2 gene mutation.