

Surgery and Interventional Procedures in Pancreatic Cancer: A Comprehensive Overview

Tom Dashara*

Department of Pathology, Beth Israel Deaconess Medical Center, Chelsea, USA

DESCRIPTION

Pancreatic cancer is one of the deadliest forms of cancer, characterized by its late-stage diagnosis and limited treatment options. Surgery and interventional procedures play a crucial role in managing pancreatic cancer by offering the potential for curative or palliative treatment. This article provides a comprehensive overview of the surgical and interventional procedures used in the management of pancreatic cancer. Pancreatic cancer is a malignant neoplasm that arises in the pancreas, an essential organ responsible for regulating blood sugar levels and aiding in digestion. It is often called a "silent killer" because it tends to remain asymptomatic in its early stages, making it challenging to detect. By the time symptoms appear, the cancer has often advanced, limiting the treatment options.

Surgery for pancreatic cancer

Surgery is the most effective treatment for pancreatic cancer, especially when the disease is localized and has not spread to distant organs. Several surgical procedures are employed, depending on the tumor location, stage, and the patient's overall health.

Whipple procedure (Pancreaticoduodenectomy): The Whipple procedure involves the removal of the head of the pancreas, part of the duodenum, gallbladder, and common bile duct. It is commonly used for tumors in the pancreatic head.

Distal pancreatectomy: In this procedure, the tail and body of the pancreas are removed. It is often employed for tumors in the body or tail of the pancreas.

Total pancreatectomy: This involves the removal of the entire pancreas. It is used when the cancer has spread throughout the pancreas.

Palliative surgery: In some cases, surgery is performed to alleviate symptoms, such as bypassing blocked bile ducts or stomach and duodenum bypass to relieve obstructed digestive pathways.

Minimally invasive surgery: Laparoscopic and robotic-assisted surgeries are emerging as alternatives to traditional open surgery, offering quicker recovery times and reduced postoperative pain.

Interventional procedures for pancreatic cancer

In addition to surgical interventions, various interventional procedures can aid in the management of pancreatic cancer:

Endoscopic Retrograde Cholangiopancreatography (ERCP): ERCP is used to relieve blockages in the bile ducts, often caused by pancreatic tumors. A flexible tube is inserted through the mouth into the duodenum, allowing for the placement of stents to keep the ducts open.

Radiofrequency Ablation (RFA): RFA uses heat generated by high-frequency radio waves to destroy cancerous tissue. It can be used to treat small pancreatic tumors or as a palliative measure to alleviate pain.

Radioembolization: This procedure involves injecting tiny radioactive beads directly into the blood vessels that supply the tumor. It is commonly used for advanced pancreatic cancer that has spread to the liver.

Chemotherapy and targeted therapy: These systemic treatments can be used alongside surgical or interventional procedures to target cancer cells throughout the body.

Radiation therapy: Radiation can be delivered externally (external beam radiation) or internally (brachytherapy) to target and shrink tumors.

Challenges in pancreatic cancer management

Pancreatic cancer remains challenging to manage due to late-stage diagnosis and the aggressive nature of the disease. Even when surgery is possible, it may not guarantee a complete cure, and the cancer can recur. Furthermore, pancreatic cancer patients may experience various complications, including exocrine and endocrine insufficiencies, which necessitate long-term management.

Correspondence to: Tom Dashara, Department of Pathology, Beth Israel Deaconess Medical Center, Chelsea, USA, E-mail: dashara_tom@edu

Received: 14-Aug-2023, Manuscript No. PDT-23-27715; **Editor assigned:** 16-Aug-2023, Pre QC No. PDT-23-27715 (PQ); **Reviewed:** 30-Aug-2023, QC No. PDT-23-27715; **Revised:** 06-Sep-2023, Manuscript No. PDT-23-27715 (R); **Published:** 14-Sep-2023, DOI: 10.35248/2165-7092.23.13.287

Citation: Dashara T (2023) Surgery and Interventional Procedures in Pancreatic Cancer: A Comprehensive Overview. Pancreat Disord Ther. 13:287.

Copyright: © 2023 Dashara T. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

CONCLUSION

Surgery and interventional procedures are essential components in the management of pancreatic cancer. While surgical resection offers the best chance for a cure, interventional procedures can alleviate symptoms and extend survival for patients with advanced disease. To enhance patient outcomes, it

is crucial to integrate these procedures with other treatment modalities like chemotherapy and targeted therapies. Early diagnosis and a multidisciplinary approach involving surgeons, oncologists, and radiologists are critical in the fight against pancreatic cancer. Continued research and technological advancements hold compact for improving the prognosis and quality of life for pancreatic cancer patients.